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Wetlands Protection and Water Rights: A Report to the U.S. Environmental Protection Agency, Region VIII

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EXECUTIVE SUMMARY

The importance of wetlands for wildlife habitat, water quality, and other values has only recently become widely appreciated. Efforts to protect the limited remaining wetlands areas in the United States have focused largely on regulating development in these areas. Little consideration has been given to protecting the water that supports the wetlands. In the western United States this means establishing a legal right to the use of water for this purpose.

The general options for protecting water for wetlands purposes are to create or transfer an appropriative water right, to limit new appropriations or transfers, or to utilize an "instream flow" program. Appropriative water rights generally require that water be physically diverted from a stream or withdrawn from the ground and applied to a beneficial use. Water rights used to support wetlands likely can be established under circumstances where the water is being diverted or controlled by an entity owning or controlling the land area containing the wetlands for benefits related to the purpose of the entity. Generally, state review processes have not considered the effects of water rights applications on wetlands though there is no legal reason why effects on wetlands could not be reviewed. If the water right application involves a project requiring any kind of federal approval, wetlands protection may result from NEPA review. Only a few state instream flow programs appear broad enough to directly encompass protection of water for wetlands maintenance. Most are oriented to protection of minimum flows necessary to sustain a fishery.

State wildlife agencies in all six states within the EPA Region VIII area hold appropriative water rights that in some cases assure water needed for wetlands. Four of the six states have an instream flow protection program. None have used this authority to protect water for wetlands purposes though the Colorado and Montana laws appear broad enough for this purpose. Five of the six states have a review process for new appropriations that could consider effects on wetlands but none have yet used their process for this purpose.

INTRODUCTION

The preservation of wetlands is a comparatively new priority in this country. For years, national policy had been quite the reverse--to drain bogs, swamps and marshes and to "reclaim" these lands for some other use. Indeed--though "swamps" are not widespread in the arid West--remarkably, 65 million acres of land passed to the western states under the several Swamp Lands Acts in the late 1800s on the condition that these "swamp lands" be "reclaimed."[1]

For most of its modern history, the imperative in the western United States has been the fullest possible development of the limited supplies of water. This intensive development of available water resources involved the installation of a massive water diversion and collection system that has permanently altered the natural flows of water in every major river basin in the West. The runoff of water in the spring that inundated large areas of land has been largely captured by a network of storage facilities. Over time, the collection systems have moved further and further upstream, capturing the natural flows even in some pristine headwaters areas.

The integrity of watersheds and water basins across the West has been breached by numerous diversion projects moving water from places of availability to places of use. These diversions permanently remove water flows from their natural courses. In Colorado

alone there are 19 ditches and tunnels taking water from streams west of the Continental Divide for use in the more heavily populated eastern area.[2]

The development and use of groundwater increased dramatically in the western states following World War II. In many areas groundwater withdrawals greatly exceed recharge so that water tables have declined.[3] An assessment of the nation's water resources found that groundwater overdraft in 1975 occurred in 8 of the 10 regions and 44 of the 53 subregions included within the 17 western states.[4]

The effects of this massive water development effort on other uses of water such as the maintenance of fisheries and wetlands were almost totally disregarded until relatively recently. Reisner and Bates report that only ten percent of the wetlands that existed in California in 1850 still remain.[5] They describe the drying up of Tulare Lake in California's Central Valley, "once the largest continuous expanse of fresh water and wetlands in the state," because of dams constructed on the rivers that fed the lake, as well as the loss of other important wetland areas in the West.[6]

The many values of wetland areas are now gaining recognition.[7] The 1988 report of the National Wetlands Policy Forum listed 15 functions served by wetlands ranging from flood control to wildlife habitat to water quality.[8] According to the report:

> Their biological productivity can exceed that of the best agricultural lands. A broad array of wildlife, fisheries, and other aquatic resources depends on them. Wetlands sustain nearly one-third of the nation's endangered and threatened species. They provide breeding and wintering grounds for millions of waterfowl and shorebirds every year. Coastal wetlands provide nursery and spawning grounds for 60 to 90 percent of U.S. commercial fish catches.
>
> Wetlands also play key roles in regional hydrologic cycles--lessening flood damage, reducing erosion, recharging groundwater, filtering sediment, and abating pollution. Within a landscape, they are linked to both upstream and downstream ecosystems, and their functional values may extend well beyond the boundaries of the wetlands themselves.[9]

One of the problems of wetlands protection is that most of these wetland benefits are general in nature while the lands and the associated water may offer greater benefits to individuals in alternative uses.

To this point, wetlands protection has been regarded primarily as a regulatory issue. Dredging and filling activities in most wetland areas are regulated under Section 404 of the Clean Water Act.[10] A permit for such activities must be obtained from the Army Corps of Engineers. Activities resulting in a net loss of wetlands may not be permitted.

Particularly in the western U.S., protection of wetlands depends not only on control of surface development but also on maintenance of the water that supports the wetlands. Uses of water in the arid western U.S. are governed by state allocative systems. Rights to use water are based on appropriation of the quantity required for beneficial use. Full protection for a wetlands

area ultimately must include legal protection within these allocation systems for the water use associated with maintaining, restoring or creating a wetland.

This report begins with a consideration of the prior appropriation doctrine. It then discusses modifications to that doctrine allowing for certain "instream" uses of water. Issues in providing legal protection for water uses related to wetlands protection are considered. Finally, the report summarizes an analysis of the laws related to protection of water for wetlands of the six states in the Environmental Protection Agency's Region VIII: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming. An appendix containing a more detailed discussion of these states also is included.

THE PRIOR APPROPRIATION DOCTRINE

Historically, an appropriative water right has required three essential elements: 1) an intent to appropriate water; 2) a physical diversion structure or other means to take control of the water; and 3) the application of water to a beneficial use.[11] These elements distinguish appropriative water rights from riparian rights which exist as an incident of riparian land ownership and which allow reasonable use of the available water by riparians. Most western states explicitly repudiated the riparian doctrine as a means of determining rights to use water, but some have a system recognizing both appropriative and riparian rights. The essence of an appropriative water right traditionally has been physical capture of the water through diversion or storage and application of that water to a beneficial use, irrespective of location.

Many western states have clung tenaciously to the principle that there cannot be a traditional private appropriative water right without a physical diversion structure or, at least some demonstrated means of exercising possession or control of the water. So, for example, in a 1971 decision the Colorado Supreme Court denied the right to claim water in the stream for the protection of a stream fishery because an appropriation of water required an "actual diversion" of water.[12] Similarly, in a 1979 decision, the California Court of Appeal denied the right of the California Department of Fish and Game to appropriate water for protection of fish because "while a physical diversion is not necessary in all cases, some element of possession or other control is essential."[13]

The requirement that water be applied to a beneficial use generally has been viewed as a dynamic concept, expandable as the needs of society change. Thus, in a 1917 decision the Utah Supreme Court had no problem with the intention to divert water for the "growing of grasses, tules, rushes, and other vegetation suitable for feeding wild fowl . . ." by a private duck club.[14] More recently, states have been expanding their statutory definition of beneficial use to include such things as recreation and fisheries.

There is another aspect to the beneficial use requirement, however, that has limited some nontraditional water uses. Beneficial use also serves to measure the quantity of the water right. In the words of the Colorado statute, beneficial use is "the use of that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the appropriation is reasonably made. . . ."[15]

In an often-cited 1913 decision, a federal circuit court denied a water right to a Colorado resort wanting to protect a water fall for its scenic beauty and for the vegetation that its mists supported.[16] In part, the decision rests on an interpretation that

Colorado law did not recognize scenic beauty as a protectable beneficial use of water. The court also was concerned that reliance on the natural spray and mist from the fall to maintain the vegetation was wasteful in comparison with the "customary methods of irrigation."[17] The court stated: "Undoubtedly a landowner may rely upon an efficient application by nature, and need do no more than affirmatively to avail himself of it . . .; but the use in that way should not be unnecessarily or wastefully excessive."[18] To support its conclusion, the court cited a U.S. Supreme Court decision that refused protection to a senior appropriator whose use of a water wheel to move water from the stream up to irrigate his land was impaired by the loss of current caused by a downstream dam.[19] To protect this inefficient means of diversion would have meant denying a valuable storage and irrigation project, a result which the court characterized as giving the water wheel owner a riparian right to command the full flow of the stream.

This same line of reasoning was followed in the 1971 Colorado decision, referenced earlier, to deny an instream appropriation of water for fishery protection.[20] Similarly, in a 1972 decision, the Colorado Supreme Court refused a claim for an appropriative water right based on seepage from a reservoir that historically had subirrigated the claimant's pasture.[21] The apparent wastefulness of commanding a large flow of water in order to put a small quantity to beneficial use clearly concerned the court.

INSTREAM FLOW PROTECTION APPROACHES

Water allocation systems in most western states have been modified to recognize and protect the water needed for certain instream uses.[22] The general approaches that have developed are: 1) withdrawing a stream or a stream segment from appropriation; 2) reserving some quantity of water from appropriation; 3) establishing a protected minimum flow level; 4) creating an appropriative-type instream flow right; 5) using public interest review to limit new appropriations of water or changes in existing rights; 6) asserting a public trust to protect certain values; and (7) transferring existing consumptive uses to instream flow purposes. See Table 1.

Withdrawal from Appropriation

Perhaps the earliest example of the withdrawal approach occurred in Idaho in 1925 with legislation effectively appropriating all water in Big Payette Lake to preserve the scenic beauty and recreational value of the water.[23] Oregon, by statute, has withdrawn a number of streams and segments of streams from further appropriation.[24]

The federal Wild and Scenic Rivers Act precludes construction of new dams or diversion works within or directly affecting protected stream segments.[25] In 1988, Congress designated 40 river segments in Oregon as wild and scenic, nearly doubling the number of protected rivers in the West.[26] California has enacted a wild and scenic river law similar to the federal statute.[27] Washington and Oregon both have a Scenic Waterways Act that limits water development within designated waterways.[28]

Reservations of Water

A second strategy for protecting instream flows is to reserve some specified quantity of the remaining unappropriated water in a stream. The reservation serves to preclude appropriation of this water for some specified period of time.

Montana uses a reservation approach. Any Montana state agency or any federal agency may apply for a reservation of water for either future consumptive uses or for

Table 1. Options for Protecting Instream Uses of Water Under Western Water Law

Approach	Examples
1. Withdrawal from appropriation	Wild & scenic river designation: California, Oregon, Washington Withdrawal of designated streams or water bodies: Oregon, Idaho
2. Reservation of water	Alaska, Montana
3. Protected minimum flow levels	Kansas, Washington
4. Instream appropriative water rights	Colorado, Idaho, Oregon, & Wyoming - state programs Arizona & Nevada - private rights
5. Public interest review of water rights applications	California, Idaho, Washington
6. Public trust review of existing water rights	California
7. Transfer of existing rights to instream flow purposes	Colorado, Oregon, Utah, & Wyoming Montana (leasing) California (temporary)

instream flow needs including recreation, fish and wildlife, and maintenance of water quality.[29] Reservations are reviewed at least once every ten years. Instream flow reservations are reviewed every five years.

Alaska allows anyone, including a private individual, to apply for a reservation of water.[30] Reservations may be for four types of instream uses: (1) protection of fish and wildlife; (2) recreation and park purposes; (3) navigation and transportation purposes; and (4) water quality purposes. These reservations are regarded as water rights but, unlike appropriative water rights, they must be reviewed every ten years.

Minimum Flow Protection

A third strategy is to designate certain minimum flow levels as protected. As with reservations, this designation has the effect of precluding appropriation of this water. States following this approach are Kansas and Washington.

The Kansas State Water Resource Planning Act sets up a process for identifying on a state-wide basis "minimum desirable streamflows to preserve, maintain, or enhance baseflows for instream water uses relative to water quality, fish, wildlife, aquatic life, recreation, general aesthetics, and domestic uses and for the protection of existing water rights;...."[31] Based on recommendations arising out of this process, the legislature has adopted a number of minimum streamflows for water courses in Kansas.[32] New appropriations in these designated streams are subject to maintaining these minimum streamflows.

The Washington Water Resources Act calls for the maintenance of base flows in all perennial streams, if possible.[33] It directs the Department of Ecology to develop basin management and instream resource protection plans. Instream protection plans evaluate the optimum flows needed to support a variety of instream values against the available flows.[34] If there is insufficient water, the stream may be closed to further appropriation. If unappropriated water is available, the department establishes protected minimum streamflows (not necessarily optimum flows) through a rulemaking proceeding. New appropriations are subject to the maintenance of these flow levels. The adopted minimum flows are regarded as an appropriation of water with a seniority date as of the adoption of the rule.

Instream Appropriative Water Rights

Still another approach is to directly appropriate water for instream uses in the same general way that water is appropriated for other beneficial uses. Colorado, Idaho, Oregon and Wyoming have established special state programs for this purpose. Arizona has granted instream flow appropriations under its general allocation system.

Colorado created its instream flow program in 1973. The Colorado Water Conservation Board is authorized to appropriate unappropriated water to "preserve the natural environment to a reasonable degree."[35] The appropriations are for specified minimum flows between particular points on the stream or for minimum levels on lakes. By 1988, more than 1,000 rights had been adjudicated representing protection of minimum flows in more than 7,000 miles of streams--mostly in the mountainous areas of the state.[36]

Idaho has adopted a similar approach whereby the Idaho Water Resources Board is authorized to apply for a water right for specified minimum streamflows.[37] Earlier legislation had authorized the Idaho Park and Recreation Board to obtain an appropriation to preserve certain instream flows for

aesthetic and recreational purposes.[38] Applications pursuant to this authorization were upheld by the Idaho Supreme Court against challenges maintaining that a physical diversion was required and the appropriation was not for a recognized beneficial use.[39]

In 1987, Oregon transformed its minimum streamflow program into an instream water rights program.[40] The Department of Fish and Wildlife, the Department of Environmental Quality, and the Parks and Recreation Division can request that instream rights be established by the Water Resources Commission. All rights are held by the Water Resources Department. Provision is made for the purchase, lease, or donation of existing consumptive rights for conversion to instream water rights. Instream appropriations are permanently subordinated to future appropriations for municipal purposes.

Wyoming law provides for state appropriation of water either for instream flow protection directly or for storage and subsequent releases for instream flow purposes.[41]

Arizona does not have a state instream flow program but it has granted appropriative water rights for instream flow purposes.[42] In granting the initial permits the Department of Water Resources determined that, under Arizona law, instream flow protection for wildlife habitat preservation and aesthetics is a beneficial use of water and that a diversion is not required to appropriate water.[43] It also allowed a private group, The Nature Conservancy, and a federal agency, the Bureau of Land Management, to hold these permits. The Department has not yet determined whether such a right may be held by an entity that does not also own the land adjoining the protected stream segment.

Public Interest Review of Water Rights Applications

States may also use their review authority to condition or deny requests for new appropriations or for changes in existing rights in order to protect instream flows. All western states except Colorado include some kind of public interest review in the application procedure for new water rights.[44] Several states also provide for a similar kind of review for changes of water rights. Only a few states explicitly provide for protection of instream flows as part of the review process.

Washington law, since 1949, has authorized the denial of a water right permit if the requested appropriation would reduce water levels below that necessary to protect fish.[45] The Department of Ecology also is directed to insure that applications for new water rights provide protection for minimum streamflows already established by the Department and to attach conditions to the permit if necessary for maintenance of these flows.[46]

In Idaho, the Department of Water Resources must determine if a proposed appropriation will conflict with the local public interest.[47] In a 1985 decision, the Idaho Supreme Court held that the public interest includes fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, and water quality among other things.[48]

California law directs the Department of Game and Fish to make recommendations concerning water needed to protect fish in connection with applications for new appropriations.[49] The State Water Resources Control Board must "consider" this recommendation and "take into account" water needed for recreation or for uses specified in a water quality control plan.[50] Further, the Board must weigh the relative

benefits of the proposed appropriation against alternative uses of the water.[51] Commonly, the Board grants permits with terms and conditions regarding things like bypass flows, releases to augment downstream flows, and periodic large releases to provide flushing flows.[52]

Public Trust Review of Appropriations

In recent years, the courts in several western states have applied the public trust doctrine in water rights cases. In its broadest form it is a doctrine that asserts the existence of an inalienable trust protecting public uses of resources against governmental action harmful to these uses.[53] It has been used in the water rights context as a basis for judicial review to challenge decisions to grant new rights[54] as well as to review adverse effects of existing rights.[55]

Perhaps the most well-known public trust decision involved the effects on Mono Lake of water diversions by the City of Los Angeles.[56] Los Angeles had established water rights in the Mono Basin in 1940.[57] With the completion of its diversion facilities in 1970, the city began exporting about 100,000 acre-feet of water per year from the Mono Basin. By 1979 the lake level had declined 43 feet and a number of significant environmental impacts were becoming apparent.[58] The California Supreme Court ruled that the public trust doctrine applied to this situation[59] and required the state to exercise a continuing supervisory authority over the navigable waters to "protect the people's common heritage of streams, lakes, marshlands and tidelands."[60] Consequently, in California all existing water rights are subject to possible modification if necessary to protect public trust interests and applications for new rights will be closely scrutinized for possible adverse effects on those interests.

Professor Dunning has stated that "[t]he public trust doctrine has its greatest potential as a tool for an aggressive approach to environmental restoration."[61] In many locations, water resources are already fully allocated to consumptive uses. In these settings, protection of instream flows will depend on some form of reallocation. Public trust supervision provides one means of accomplishing this objective.

Transfers of Existing Rights

Another means of improving instream flows involves either the temporary or permanent transfer of a consumptive diversionary water right to instream flow uses. Western states generally allow the holder of an appropriative water right to change certain characteristics of the water right without loss of priority.[62] In some situations it may be possible to purchase or lease an existing water right and change the use to instream flow purposes.

Several western states have given statutory recognition to such transfers. Colorado, Oregon, Utah and Wyoming have made acquisition of existing consumptive rights for transfer to instream uses a part of their state instream flow protection programs. Colorado law authorizes the Colorado Water Conservation Board to acquire, on a temporary or permanent basis, "interests in water" for instream flow purposes.[63] Oregon law now provides for the purchase, lease, or donation of private water rights to the Water Resources Department for conversion to instream water rights.[64] Utah law restricts instream flow rights to those that can be established by changing the use of already perfected water rights (1) presently held by the Utah Division of Wildlife, (2) purchased by the Division with funding specifically provided by the legislature or acquired by donation, or (3) appurtenant to real property acquired for wildlife purposes.[65]

In 1989, Montana initiated a trial program for leasing water needed to maintain fisheries during low-flow periods.[66] The Department of Fish, Wildlife, and Parks together with the Department of Natural Resources and Conservation are to determine instream water needs associated with preserving the fisheries in certain designated streams.[67] Water leased is restricted to the historical consumptive use of the water right. The initial base term is limited to four years but may be renewed for up to ten years.

* * *

As this brief survey indicates, the changes in water law to accommodate instream flow uses have been dramatic. In the next section we look specifically at the opportunities for providing legal protection to the water associated with maintaining, restoring, or creating a wetland.

WATER FOR WETLANDS

Considering legal options to protect water for wetlands demonstrates both the importance of the changes that are underway in western water laws and their limitations. Wetlands are complex, water-dependent ecosystems. They often develop in water catchment areas fed by periodic surface inundation or by groundwater discharges. Within the prior appropriation context, there is no legal right to this water. It has been supplied through natural processes or as the unintentional consequence of water storage, delivery or use. Whatever the source of the water, long-term protection of a wetland depends on assuring that adequate water will be available.

There are three primary options for protecting the water associated with a wetlands area: by establishing or transferring an appropriative water right for the water; by restricting new appropriations or water right changes that would adversely affect water availability; or by utilizing state instream flow laws. Considerations concerning these options are discussed next.

Appropriative Water Rights

Appropriative water rights may be established for wetlands under certain circumstances. In most western states it will be necessary to establish some kind of physical control of the water that supports the wetland. This will be no problem in situations where the water is provided out of storage or is diverted out of a stream and moved to a wetland area in a manner similar to irrigation of crops. In situations where water supports a wetlands through natural means as from a spring or other kinds of surface seepage from groundwater or from inundation during high surface flow periods, the physical control dimension is more problematic. One approach may be to construct dikes or levees to contain the water.

Presently, only Nevada explicitly recognizes wetlands as a beneficial use for which an appropriative water right may be obtained.[68] Wetlands may be implicitly included in those states where wildlife is a recognized beneficial use of water because of the importance of wetlands for wildlife habitat. Similarly, for those states recognizing water quality as a beneficial use, wetlands may be included by implication because of the water quality benefits of wetlands. Water use for wetlands may also be considered beneficial in those states where such uses are not statutorily limited to those that are enumerated--typically, irrigation, industrial, and domestic. Even when the uses are so limited, it may be possible to argue that the use is for irrigation purposes.

In most cases, the individual or entity holding the water right also will own or control the land containing the wetland area.

In some states this may be necessary. For example, a water right was denied to a duck club in Utah seeking to divert water to grow vegetation for feeding wildfowl because the use would be on public lands.[69] The Utah Supreme Court held that the beneficial use of the water had to be under the exclusive control of the appropriator. States where water rights are considered appurtenant to the land may also require the appropriator to own or control the land.

There should be little problem with privately held water rights for wetlands so long as there are related benefits to the water right holder. Thus, for example, in the Utah case the duck club could have had a water right if the marsh had been on its land. The use of water to grow vegetation to feed ducks related clearly to the interests of the members of the club. Similarly, water rights for wetlands should be able to be held by a nature conservation group whose members would be able to benefit from the wildlife habitat that is maintained. One possible limitation concerns whether states that have recognized wetlands or wildlife protection only in conjunction with a specially created instream flow program intended to limit such uses of water only to public agencies in connection with those programs.

In many western states, federal and state agencies have appropriated water for wildlife management objectives. These water rights protect water in lakes, ponds and marshes for waterfowl propagation and other purposes. Wetlands often are an essential aspect of these areas. Examples from the EPA Region VIII states are presented in the following section.

The water transfer process also is being used to shift water to wetlands protection. A prominent example involves efforts by The Nature Conservancy and the U.S. Fish and Wildlife Services to acquire irrigation water rights in the Newlands Project in Nevada and transfer their use to wetlands protection in the Stillwater Wildlife Refuge.[70] Wetlands in this area have declined from about 33,400 acres in 1900 to about 5,000 acres today.[71] The Nature Conservancy also intends to transfer purchased irrigation water rights to wetlands use at two of its preserves in Idaho. In California, the temporary transfers mechanism has been used to obtain water needed to sustain wetlands in the Kern National Wildlife Refuge and the Grasslands Water District.[72]

Restricting New Appropriations or Changes of Rights

Water presently supporting a wetland area may also be protectable by assuring that all new water rights and changes of existing water rights are conditioned by a requirement that existing wetlands not be adversely affected. No state explicitly includes such a requirement in its water rights allocation process but wetlands may be considered indirectly by those states that review possible effects on wildlife. For example, when considering the availability of water for appropriation, the California State Water Resources Control Board is directed to take into account the amounts of water required for wildlife.[73] In addition, the board may only allow a change of water right if the change will not unreasonably affect wildlife.[74] Under this authority, the board could limit the new appropriation or the change to protect water necessary for a wildlife-supporting wetlands area.

The general public interest review that applies to all applications for new appropriations in most western states potentially could be applied to protect water for wetlands. In fact, however, the public interest review in most states has been very limited to this point. Idaho is one of the few states that has given content to its public

interest review. In Shokal v. Dunn,[75] the Idaho Supreme Court determined that the state's public interest provision encompassed a broad spectrum of public values including protection of wildlife habitat. In Stampel v. Department of Water Resources,[76] the Washington Supreme Court ruled that the public welfare criterion applying to new appropriations in that state included the related environmental and ecological effects.

Even assuming that the state public interest review can be extended to wetlands protection, a major shortcoming of this approach is that it is necessarily reactive. Each application for a new appropriation or a change must be scrutinized for possible effects on wetlands.

This option is considerably enhanced if some kind of federal permission is required since this triggers potential NEPA review[77] and engages the substantial regulatory authority of the involved federal agencies. While this regulatory authority may make it possible to place limitations on the proposed activity, it may not be helpful in assuring the long-term availability of water that is allocated under state law.

State Instream Flow Laws

As discussed, most western states have established special programs aimed at providing legal protection within the state water rights system for certain instream uses of water. Table 2 indicates the purposes for which minimum flow protection may be established under the various state laws. The primary, and in some cases, exclusive purpose of these state programs is to protect fisheries. Utah, for example, allows instream flows only for the "preservation or propagation of fish."[78] Wyoming recognizes instream flows only to the extent of "the minimum flow necessary to maintain or improve fisheries."[79] The Colorado instream flow program, though statutorily authorized to protect water necessary "to preserve the natural environment to a reasonable degree," in fact has been used only to protect cold-water fisheries.[80] In these states the instream flow protection program probably would not extend directly to the protection of water for wetlands.

Several state instream flow programs also extend to wildlife or wildlife habitat. Since many wetland areas serve as important sources of wildlife habitat, it may be possible in these states to protect the water supporting the wetlands under the state program. A few states recognize values other than wildlife habitat that may be broad enough to encompass protection of water for wetlands. Oregon's minimum flows program may protect ecological values[81] and Washington's program may protect aesthetic values.[82] Only Hawaii's law specifically mentions wetlands maintenance as a purpose for its instream flow program.[83]

The decision to reserve or designate water for instream flow purposes generally rests with a state agency or with the legislature. Often, other state agencies and, occasionally, federal agencies, can make "recommendations" that minimum flows be reserved. Only the Alaska program allows "any entity" to hold an instream flow reservation, though Arizona[84] and Nevada[85] have granted instream flow appropriations under their water rights systems to entities other than state agencies.

These programs typically operate on the basis of maintaining some minimum amount of flow in a stream or level in a lake. However, water for wetlands may come from periodic inundation of an area during peak flow events. In other instances the water supporting a wetland may be groundwater. Reservations for these sources of water will require a broader view of instream flow

Table 2. Instream Values Recognized in Western State Programs

State	Instream Beneficial Uses Recognized
Alaska	protection of fish & wildlife habitat, migration, and propagation
Colorado	preserve the natural environment to a reasonable degree
Hawaii	maintenance of fish and wildlife habitats; outdoor recreational activities; maintenance of ecosystems such as estuaries, wetlands, and stream vegetation; maintenance of water quality
Idaho	protection of fish and wildlife habitat [and] aquatic life
Montana	fish and wildlife
Nebraska	fish . . . and wildlife
Oregon	conservation, maintenance and enhancement of aquatic and fish life, wildlife, fish & wildlife habitat and any other ecological values
Utah	preservation or propagation of fish
Washington	protecting fish, game, birds or other wildlife resources, or recreational or aesthetic values of . . . public waters whenever it appears to be in the public interest
Wyoming	maintenance and/or establishment of fisheries

protection than currently exists.

Of course, a major limitation of these programs is the junior status of the protected water. Most instream flow reservations in the West have occurred within the last 15 years. Yet, in many areas, reliable streamflows have been fully appropriated for 100 years. In recognition of this basic reality, states such as Oregon and Colorado specifically provide for the conversion of existing water rights to instream flow rights. While donations of rights to these programs under the auspices of groups like The Nature Conservancy can be helpful, meaningful protection of primarily nonconsumptive water uses such as wetlands will require state and federally funded water rights acquisition programs.[86]

PROTECTING WATER FOR WETLANDS: A SIX-STATE ANALYSIS

In this section, the general options for protecting water for wetlands are examined in relation to the laws and programs in the six states that comprise EPA's Region VIII. These states are Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming. Detailed discussions of each of these states are presented in an appendix to this report.

Use of Instream Flow Laws

Four of the six states in the Region VIII area have enacted special instream flow protection statutes. Montana uses the reservation approach while Colorado, Utah, and Wyoming utilize special appropriative water rights.[87] In all cases, only the state may hold the reservation or the water right. In Utah and Wyoming, the purposes for which instream flows may be established are explicitly restricted to protection of fisheries. Colorado's legislative standard is much broader but has been administratively limited to protection of cold-water fisheries. Montana allows reservations for recreation, fish and wildlife, and water quality.

Utah's program does not permit appropriation of unappropriated water. Existing water rights must be converted to instream rights. Colorado law provides for the donation or acquisition of interests in water to be used for instream purposes. Montana recently created an experimental program to lease water for protection of fisheries.

Conversations with each of the states indicate that these instream flow programs have not been used for wetlands protection purposes. It seems likely that the existing programs in Utah and Wyoming could be used for this purpose unless the wetlands is linked to fisheries maintenance. Similarly, as currently interpreted, the Colorado program is not being used for wetlands maintenance.

Review of New Appropriations or Changes of Rights

All of the states except Colorado have some kind of public interest standard that applies to new appropriations. Montana subjects proposed appropriations involving quantities of water equalling or exceeding 4,000 acre-feet or 5.5 cubic feet per second to a review of the reasonableness of the use including effects on reservations of water and on water quality. The North Dakota statute requires the state engineer to consider the effect of the proposed appropriation on fish and game resources. The Utah provision directs the state engineer to investigate possible effects of a proposed appropriation on the natural stream environment. By court decision, the public interest standard now has been determined to apply to changes of water rights as well. South Dakota law contains both a general provision mandating that permits not be issued unless the proposed use is determined to be in the public interest and a requirement that state-funded projects

conform to the state water plan before receiving state money. Finally, Wyoming law provides that the state engineer must reject an application which "threatens to prove detrimental to the public interest."

These various provisions could be used to consider the effect of a proposed appropriation on the availability of water necessary to maintain a wetlands area. Telephone interviews with state agency personnel indicated that wetlands effects have not been considered during the state review processes to this point. Review generally has been limited to effects on other water rights.

We did find one example where wetlands were protected from loss of historically available water. In this case, an environmental assessment of a proposed transfer of conserved water from the Casper-Alcova Irrigation District to the City of Casper identified 27 areas where seepage from the water delivery system had created distinctive vegetative communities.[88] Five of these areas were determined to be wetland areas that should be protected. To maintain these wetlands, ditch lining and other rehabilitation will not occur in these areas. This review occurred under the National Environmental Policy Act because it involved action by a federal agency (the Bureau of Reclamation) and not because of a state requirement.

Public Trust Review of Water Appropriations

Both North and South Dakota recognize the public trust doctrine, although in differing forms. The doctrine is not part of the law of the other four states in the region.

In North Dakota, the public trust imposes a planning requirement on the state engineer. It requires him to determine the potential effect on the state's present water supply and future needs before granting a water right. The state supreme court has considered, but not decided, the question of whether the doctrine also applies to the drainage of wetlands.

In South Dakota, the common law public trust doctrine has not developed to the point of restricting the acquisition or exercise of water rights. However, the state's Environmental Protection Act contains trust language granting the public a right of action in certain cases "for the protection of the air, water, and other natural resources and the public trust therein." This law has not been utilized to protect wetlands.

Appropriative Wetlands Water Rights

Opportunities for obtaining appropriative water rights for wetlands exist in all of the six states in the region. In fact, our research revealed that wildlife agencies in each of the states hold appropriative water rights that provide water for wetlands used as wildlife habitat.

Colorado law explicitly states that only the Colorado Water Conservation Board can acquire or hold instream water rights. However, the statute does recognize recreation, including fishery and wildlife, as a beneficial use for an appropriative water right. Thus, water can be used to support a wetland so long as it is impounded or otherwise diverted from the stream.

Montana also recognizes fish and wildlife as a beneficial use for an appropriative water right. Unlike Colorado, it does not explicitly require an actual diversion to obtain a water right. Montana law authorizes appropriations for public as well as private benefits.

In North Dakota, fish, wildlife, and recreation are recognized as beneficial uses

for an appropriative water right. State law does not address the subject of whether an actual diversion is required, but in practice the state does not enforce an actual diversion requirement.

South Dakota law is similar to that of North Dakota. Fish and wildlife or recreation fall within the state's definition of beneficial use, and the state does not require an actual diversion.

Utah's law is the strictest in the region. The state explicitly requires an actual diversion, and case law suggests that appropriations by private parties must be for their exclusive enjoyment and benefit. Wetlands for wildlife habitat appear to be a beneficial use of water in Utah.

Finally, Wyoming explicitly requires that appropriators physically divert their water. Beneficial use is determined on a case-by-case basis in the state.

As mentioned, state wildlife agencies hold appropriative water rights for wildlife-related purposes in all of these states. For example, the Colorado Division of Wildlife holds 817 decreed water rights for fish propagation, irrigation, or wildlife. Wetlands areas directly benefit from these water rights in many cases though the rights are not held for wetlands purposes. In connection with wildlife refuges that it manages, the U.S. Fish and Wildlife Service also holds appropriative water rights in these states. Examples and further discussion can be found in the appendix.

Other State Programs Offering Protection for Wetlands

Several states have other programs or laws that could relate to wetlands protection. Colorado established a "natural areas" program in 1988. Under this program, the state is authorized to identify and protect certain areas such as wetlands that provide particular benefits.

Montana deposits money received from the sale of waterfowl stamps in a special fund which is used to protect and create wetlands in the state. The state also has a statute restricting a developer's right to alter the bed or banks of a stream or lake.

North Dakota has both a wetlands statute, which regulates the drainage of wetlands and requires that drained areas be replaced by new wetlands, and a waterbank program which allows the state commissioner of agriculture to establish conservation easements protecting wetland areas.

South Dakota has a wild and scenic rivers statute but it has not yet been implemented. Utah has a statute regulating the channelization of streams. Wyoming, South Dakota and Utah do not have any special wetlands protection programs.

CONCLUSION

Serious efforts are now being made to protect the limited remaining wetland areas in the United States. In the West these efforts must include providing legal protection for the water that supports the wetlands. Existing water law is not especially well designed to address wetlands situations. Appropriative rights can be used in cases where the water is purposefully diverted into or contained in the wetlands area. The land containing the wetlands may have to be owned or controlled by the entity holding the water right. The purpose or value of the wetland may have to have some clear relation to the objectives of the entity holding the right. Even with these limitations, appropriative water rights -- particularly the transfer of existing rights -- generally provide the best means of assuring a water supply for

As presently structured, state instream flow programs are not being used to protect wetlands. In most cases they focus on protection of minimum streamflows for fish and, in fact, are sometimes specifically limited to this purpose. Yet these programs could be especially beneficial in protecting natural wetland areas without the requirement for diversions or impoundments of water.

Many states have the legal authority to consider wetlands impacts associated with new appropriations or changes of water rights under their public interest review. A few states specifically require the consideration of impacts on wildlife, a directive that should include consideration of wetlands habitat areas. Water development activities requiring a Section 404 permit or other federal approval will be required to mitigate adverse effect on wetlands. While the use of review authority can help to avoid further loss of wetlands, it may be less successful in providing affirmative protection unless mitigation requirements include the acquisition of water rights necessary to support a wetlands area.

Affirmative public and private programs are needed to maintain and improve wetlands areas. Wetlands are especially unique and important in the arid West for the habitat they provide and the ecosystems they support. Massive areas of wetlands have been lost. To hold onto remaining areas and to restore areas that have been lost will require conscious, coordinated efforts by many groups. At the center of these efforts must be the dedication of the water resources necessary to sustain these wetlands. In the West, this means providing legal protection for these water uses to ensure that water will be available.

ENDNOTES

1. A Guide to Federal Wetlands Protection under Section 404 of the Clean Water Act, 46 **Anadromous Fish Law Memo** at 2, n.6 (1988).

2. Colorado River Water Conservation District, "Transmountain Diversions" (undated figure). In 1980 these diversions brought about 400,000 acre-feet of water to the Front Range of Colorado.

3. According to one source, "[t]he USGS identified areas all over the western United States that have experienced water-level declines in excess of 40 feet. Such areas are in almost every western state and include significant portions of California, Arizona, South Dakota, and Texas." **Z. Smith, Groundwater in the West** 15 (1989).

4. U.S. Water Resources Council, The Nation's Water Resources 1975-2000 (Washington, D.C. 1978), vol. 3, app. II, table II-5. The assessment divided the country into 21 regions and 106 subregions.

5. **M. Reisner and S. Bates, Overtapped Oasis** 43 (1990).

6. Id. at 38-44

7. Aldo Leopold provided some clues to the importance of wetlands in his 1949 "Marshland Elegy":

> A dawn wind stirs on the great marsh. With almost imperceptible slowness it rolls a bank of fog across the wide morass. Like the white ghost of a glacier the mists advance, riding over phalanxes of tamarack, sliding across bogmeadows heavy with dew. A single silence hangs from horizon to horizon.
>
> [He goes on] At last a glint of sun reveals the approach of a great echelon of birds. On motionless wings they emerge from the lifting mists, sweep a final arc of sky, and settle in clangorous descending spirals to their feeding grounds. A new day has begun on the crane marsh.
>
> A sense of time lies thick and heavy on such a place. Yearly since the ice age it has awakened each spring to the clangor of cranes. The peat layers that comprise the bog are laid down in the basin of an ancient lake. The cranes stand, as it were, upon the sodden pages of their own history. These peats are the compressed remains of the mosses that clogged the pools, of the tamaracks that spread over the moss, of the cranes that bugled over the tamaracks since the retreat of the ice sheet. An endless caravan of generations has built of its own bones the bridge into the future, this habitat where the oncoming host again may live and breed and die.
>
> To what end? Out on the bog a crane, gulping some luckless frog, springs his ungainly hulk into the air and flails the morning sun with mighty wings. The tamaracks re-echo with his bugled certitude. He seems to know.

Sketches Here and There (1949).

8. The National Wetlands Policy Forum, Protection America's Wetlands: An Action Agenda (The Conservation Foundation, 1988, p. 10).

9. Id. at 9.

10. 33 U.S.C. §1344.

11. A concise summary of prior appropriation law can be found in A.D. Tarlock, **Law of Water Rights and Resources** (1988).

12. Colorado River Water Conservation Dist. v. Rocky Mountain Power Co., 174 Colo. 309, 486 P.2d 438 (1971), cert. denied, 405 U.S. 996 (1972). The diversion requirement has been removed for instream flow appropriation by the Colorado Water Conservation Board. Colo. Rev. Stat. §37-92-102 (Supp. 1989).

13. Fullerton v. California State Water Resources Control Bd., 90 Cal. App. 3d 590, 153 Cal. Reptr. 518 (1979).

14. However, the court denied the water right because its use would be on public lands and thus the beneficial use could not belong exclusively to the appropriator. Lake Shore Duck Club v. Lake View Duck Club, 50 Utah 16, 166 P. 309 (1917).

15. Colo. Rev. Stat. §37-92-103 (4)(1973).

16. Empire Water & Power Co. v. Cascade Town Co., 205 F. 123 (8th Cir. 1913).

17. Id. at 129.

18. Id. at 129.

19. Schodde v. Twin Falls Land & Water Co., 224 U.S. 107 (1912).

20. Colorado River Water Conservation Dist. v. Rocky Mtn. Power Co., supra note 7.

21. Lamont v. Riverside Irrigation Dist., 179 Colo. 134, 498 P.2d 1150 (1972).

22. For a thorough presentation of the law related to instream flow protection in the western U.S. see **Instream Flow Protection in the West**, L. MacDonnell, T. Rice, and S. Shupe, eds. 1989.

23. Idaho Code §67-4301 (1980).

24. Or. Rev. Stat. §§538.110 to -538.300 (1988). Several states provide some process for the withdrawal of streams from appropriation. For example, Utah has a statutory provision allowing the governor to withdraw the unappropriated waters of a stream from additional appropriation. Utah Code Ann. §73-6-1 (1980 Repl.). Montana law authorizes the state legislature to close a "highly appropriated basin or subbasin." Withdrawal also can be accomplished through administrative rulemaking. Mont. Code Ann. 2185-2-319 (1989). The purpose of these

withdrawals is not instream flow protection but to prevent over-appropriation of a stream to the detriment of other water rights holders.

25. 16 U.S.C.A. §1278(a) (1985 and Supp. 1989).

26. Omnibus Oregon Wild and Scenic Rivers Act of 1988, P.L. 100-557, 102 Stat. 2782 (1988) (codified at 16 U.S.C.A. §7274 (1989 Supp.).

27. Cal. Pub. Res. Code §5093.50 (WEST 1984).

28. Or. Rev. Stat. §§390.805 to -390.925 (1987 and Supp. 1988); Wash Rev. Code Ann. §§79.72.010 to -79.72.900 (Supp. 1989).

29. Mont. Code Ann. §85-2-316 (1989).

30. Alaska Stat. §46-15.145 (1988).

31. Kan. Stat. Ann. 82a-928 (i) (Supp. 1988).

32. See Rolfs, Minimum Desirable Stream Flow in Kansas, in Instream Flow Protection in the West 280 (1989).

33. Wash. Rev. Code §90.54.020(3)(a) (Supp. 1989).

34. See Barwin & Slattery, Protecting Instream Resources in Washington State, in Instream Flow Protection in the West 374-76 (1989).

35. Colo. Rev. Stat. §37-92-102(3) (1973 and Supp. 1988).

36. Shupe, Colorado's Instream Flow Program: Protecting Free-Flowing Streams in a Water Consumptive State, in Instream Flow Protection in the West 242 (1989).

37. Idaho Code §§42-1501 to -1505 (Supp. 1989).

38. Idaho Code §§67-4307 to -4312 (1980 and Supp. 1988).

39. State Dept. of Parks v. Idaho Dept. of Water Admin., 96 Idaho 440, 530 P.2d 924 (1974).

40. Or. Rev. Stat. §536.322 (1987). See generally Borden, Oregon's Minimum Perennial Stream Flows, in Instream Flow Protection in the West (1988).

41. Wyo. Stat. §41-3-1001 et seq. (Supp. 1988).

42. See Dishlip, Instream Flow Water Rights: Arizona's Approach, in Instream Flow Protection in the West (1989).

43. The Department relied heavily on McClellen v. Jantzen, 26 Ariz. App. 223, 547 P.2d 494 (1976) which had concluded that the diversion requirement had been eliminated by the

legislature when it added "wildlife, including fish" and "recreation" to the list of beneficial uses of water since such uses did not require a diversion.

44. See Grant, Public Interest Review of Water Rights Allocation and Transfer in the West: Recognition of Public Values, Proceedings from Conference on Water as a Public Resource: Emerging Rights and Obligations (Natural Resources Law Center, 1987).

45. Wash. Rev. Code §7520.050 (1962 and Supp. 1988).

46. Wash. Rev. Code Ann. §90.03.247 (Supp. 1989).

47. Idaho Code §42-203A(5)(e) (Supp. 1988).

48. Shokal v. Dunn, 109 Idaho 330, 707 P.2d 441 (1985).

49. Cal. Water Code §1243 (WEST Supp. 1988).

50. Cal. Water Code §1243.5 (WEST 1971).

51. Cal. Water Code §1257 (WEST 1971).

52. See Gray, A Reconsideration of Instream Appropriative Water Rights in California, in Instream Flow Protection in the West 184 (1989).

53. See Sax, The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention, 68 Mich. L. Rev. 473 (1970).

54. See, e.g., United Plainsmen Ass'n v. North Dakota State Water Conservation Comm'n, 247 N.W. 2d 457 (N.D. 1976); Kootenai Envtl. Alliance, Inc. v. State Bd. of Land Comm'rs, 105 Idaho 622, 671 P.2d 1085 (1983).

55. Nat'l Audubon Society v. Superior Court of Alpine County, 33 Cal. 3d 419, 658 P.2d 709, 189 Cal. Reptr. 346, cert. denied, 464 U.S. 977 (1983).

56. Id.

57. A thorough treatment of this case is provided in Dunning, The Public Trust Doctrine and Western Water Law: Discord or Harmony? 30 Rocky Mt. Min. L. Inst. 17-1 (1984).

58. The reduced water levels made it possible for predators to reach land areas that had formerly been islands and served as important nesting areas. The loss of fresh water inflows caused the lake salinity levels to increase sharply, threatening the brine shrimp population upon which the bird population depends. Finally, the exposure of large areas of highly alkaline lake bottom has led to occasional "salt storms" involving mass loadings of particulates.

59. Earlier California decisions had relied on the public trust doctrine to determine public rights in navigable waters. The court found Mono Lake to be navigable and determined that the doctrine extended to nonnavigable streams feeding navigable waters.

60. National Audubon Society, 33 Cal. 3d at 441, 658 P.2d at 724, 189 Cal. Rptr. at 361.

61. Dunning, Instream Flows and the Public Trust, in Instream Flow Protection in the West 119 (1989).

62. See MacDonnell, Transferring Water Uses in the West, 43 Okla. L. Rev. 119 (1990).

63. Colo. Rev. Stat. §37-92-102(3)(Supp. 1988).

64. Ore. Rev. Stat. §536.346 (1987).

65. Utah Code Ann. §73-3-3 (Supp. 1988).

66. HB 707, 1989 Mont. Laws.

67. Mont. Code Ann. §85-2-436 (1989).

68. This change in Nevada law occurred in 1989 and is codified at Nev. Rev. Stat. Ann. §533.023 (Supp. 1989).

69. Lake Shore Duck Club v. Lake View Duck Club, 50 Utah 16, 166 P. 309 (1917).

70. Wigington, Update on Market Strategies for the Protection of Western Instream Flows and Wetlands (Natural Resources Law Center Occasional Paper, August 1990).

71. U.S. Fish and Wildlife Service, Environmental Assessment--Proposed Acquisition of Water Rights for Stillwater Wildlife Management Area 5 (July 1989).

72. These transfers are described in Gray, Water Transfers in California: 1981-1989, in The Water Transfer Process as a Management Option for Meeting Changing Water Demands, vol. II (Natural Resources Law Center Research Report, May 1990) at tables 2 and 7.

73. Cal. Water Code §1243 (WEST Supp. 1988).

74. Cal. Water Code §386 (WEST Supp. 1988).

75. 109 Idaho 330, 707 P.2d 441 (1985).

76. 82 Wash. 2d 109, 508 P.2d 166 (1973).

77. National Environmental Policy Act, 42 U.S.C.A. §§4321-4361 (1977 and Supp. 1989).

78. Utah Code Ann. §73-3-3(11)(B)(i)(Supp. 1989).

79. Wyo. Stat. §41-3-1001(b,d)(Supp. 1989).

80. Shupe, Colorado's Instream Flow Program: Protecting Free-Flowing Streams in a Water Consumptive State, in Instream flow Protection in the West 242 (1989).

81. Or. Rev. Stat. §537.332(4)(b)(1988).

82. Wash. Rev. Code Ann. §90.54.020(1)(Supp. 1989).

83. Haw. Rev. Stat. §176 D-3 (1985).

84. Dishlip, Instream Flow Water Rights: Arizona's Approach, in Instream Flow Protection in the West 173 (1989).

85. State v. Morros, 766 P.2d 263 (Nevada 1988).

86. Congress has authorized the expenditure of $1.2 million to acquire water rights for transfer to wetlands maintenance in the Stillwater Wildlife Refuge. Public Law 100-446, 102 Stat. 1778 (1988).

87. For a detailed discussion of the laws of each of these states see Instream Flow Protection in the West (1989).

88. This information comes from a "Case Study on the Kendrick Project" prepared by Steve Bushong, Natural Resources Law Center, Aug. 1990 (draft).

APPENDIX

REVIEW OF STATES WITHIN EPA REGION VIII

Colorado

Opportunities for providing legal protection for water associated with wetlands under Colorado law are discussed in this section. These include the instream flow protection program, appropriative water rights, groundwater rights, activities of the Division of Wildlife, and the natural areas program.

Instream Flow Protection Program

Colorado established an instream flow program in 1973. However, as will be described below, the program has never been applied specifically to protect wetlands. Instead, any protection wetlands receive is incidental to protection granted to stream flows or lake levels.

Colorado's statutory definition of "beneficial use" includes instream appropriations by the state:

> [f]or the benefit and enjoyment of future generations, "beneficial use" shall...include the appropriation by the state of Colorado in the manner prescribed by law of such minimum flows between specific points or levels for and on natural streams and lakes as are required to preserve the natural environment to a reasonable degree.[89]

The Colorado Water Conservation Board (CWCB) possesses the exclusive authority to appropriate and hold instream rights in accordance with their definition.[90] Prior to acquiring such rights, the CWCB must request recommendations on which flows to protect from the state Division of Wildlife and Division of Parks and Outdoor Recreation, as well as the federal departments of Agriculture and the Interior.

A set of four "principles and limitations" restricts the CWCB's discretion in establishing instream flow rights.[91] The first states that the CWCB cannot acquire rights in water imported from one water division to another superior to those of the importer or his successor in interest. The second subordinates instream flow rights to any water uses and exchanges existing prior to the instream right, even if such uses or exchanges have not previously been recognized by a court decree. The third ensures that the CWCB does not simply rubber-stamp recommendations made by the Division of Wildlife or other agencies. It requires that the CWCB evaluate the reasonableness of a recommendation before acting on it:

> [b]efore initiating a water rights filing, the [CWCB] shall determine that the natural environment will be preserved to a reasonable degree by the water available for the appropriation made; that there is a natural environment that can be preserved to a reasonable degree with the board's water right, if granted; and that such environment can exist without material injury to water rights.[92]

The fourth restriction provides that the instream flow law neither creates any public right of access to streams through private land nor empowers the state to condemn such rights of way.

The CWCB can acquire instream flow rights in two ways. The first is by seeking a decree for unappropriated water. The second is by grant, purchase, bequest, devise, lease, exchange, or other contractual arrangement from or with any person or governmental entity.[93] Persons or entities who donate water rights to or contract with the CWCB for instream enhancement possess the power to protect their interest in water court: "[a]ny contract or agreement executed between the board and any person or governmental entity which provides water, water rights, or interests in water to the board shall be enforceable by either party [in water court] according to the terms of the contract or agreement."[94]

Colorado's instream program potentially could be used to protect wetlands; however, it has not been so applied. To date, the CWCB has interpreted its charge to "preserve the natural environment to a reasonable degree" as being limited to the maintenance of cold water fisheries.[95] However, the statutory language permits the board to use other standards, and on occasion it has done so. For example, the board recently filed to protect the Mexican Cut Ponds, a series of shallow water bodies located near Crested Butte. The standard used to justify the filing was a determination of the amount of water needed to protect the area's population of rare salamanders.

The statutory language directs the board to protect minimum stream flows or minimum lake levels. A literal reading of the language could limit the application of Colorado's instream program to wetland protection since wetlands are not based on minimum stream flows. However, wetlands do depend on the availability of some minimum quantity of water. And, the natural environment represented by certain wetland areas may be some of the most important ecosystems in the state. Thus, the potential exists for the instream flow program to be extended to wetlands protection but this potential has not yet been realized.

Appropriative Water Rights

Appropriations of water are subject to the actual diversion requirement.[96] However, the statutory definition of "beneficial use" does include the impoundment of water for recreational purposes, including fishery and wildlife.[97] This definition offers an opening for environmentally-oriented appropriations in the state.

An opinion[98] by Judge Brown of the Colorado Water Court, Division 4, exploits this opening. The case involved an application by the Upper Gunnison River Conservancy District for a storage right, with the water being released into the stream to serve the recognized beneficial uses of fishery and recreation. The court concluded that by capturing the water the district satisfied diversion requirement and removed itself from the purview of the state instream flow statute. The court further concluded that by releasing the water into the stream to accomplish legitimate beneficial uses, the district obtained the protection of the state's constitutional assurance[99] that the right to appropriate water shall never be denied. Finally, the court disposed of the argument that by releasing water and failing to redivert it the district abandoned it by ruling that so long as an instream release serves recognized beneficial uses such a release cannot be considered an abandonment.[100] Thus, the court in effect granted the district a private instream water right based on the release of storage water.

This decision ultimately will be reviewed by the Colorado Supreme Court. Assuming that it is upheld, it should provide valuable precedent for the use of stored water for wetlands protection. By its terms, the opinion only applies to instream releases for piscatorial uses and does not discuss wetlands. However, so long as the wetlands can be shown to have value for fish or wildlife purposes, this use of water would seem to fit easily within the statutory authorization.

Groundwater Rights

Tributary groundwater, defined as "that water in the unconsolidated alluvial aquifer of sand, gravel, and other sedimentary materials, and all other waters hydraulically connected thereto which can influence the rate or direction of movement in that alluvial aquifer or natural stream,"[101] is subject to appropriation in the same manner as surface water.[102] Rights to use tributary groundwater are integrated into the priority system and are administered accordingly by the state engineer.

Open-pit mining of sand and gravel often exposes tributary groundwater to the air, causing it to evaporate.[103] The state legislature addressed this problem in 1989 by requiring persons engaged in such operations to obtain a well permit from the state engineer.[104] The permit must be issued upon the water court's approval of an augmentation plan.[105] In many cases these gravel pits are being managed to create permanent ponds and wetland areas rather than being restored to pre-mining conditions. Existing consumptive water uses must be acquired and retired to offset the evaporation losses associated with this new water use.

Conditioning Private Water Rights

There is no clear authority in Colorado for conditioning water rights based on public interest considerations. Both long tradition and law in Colorado allow an appropriator to divert water and put it to beneficial use without seeking approval from a state agency.[106] If the appropriator elects to seek adjudication of his rights to protect his seniority, he must comply with the requirements of the Water Rights Determination and Administration Act.[107] This statute does not provide for public interest review of water applications.

In addition, the courts have declined to create common law public interest review requirements. In Fellhauer v. People[108] the Colorado Supreme Court stated that the day when the public interest will have to be considered when evaluating appropriations is fast approaching. However, in Southeastern Colorado Water Conservation District v. Shelton Farms[109] and in R.J.A. Inc. v. Water Users Ass'n of Dist. 6,[110] the court noted that the issue of how to combine the right of appropriation with the public interest was "especially suited for resolution through the legislative process."[111]

Division of Wildlife Activities

The Colorado Wildlife Commission is empowered to acquire and administer property for wildlife purposes. The commission may "[a]cquire by gift, transfer, devise, lease, purchase, or long-term operating agreement such land and water, or interest in land and water, as in the judgment of the commission may be necessary, suitable, or proper for wildlife purposes or for the preservation or conservation of wildlife."[112] After obtaining such property, the commission must "adopt such rules or regulations as may reasonably be necessary for the administration, protection, and maintenance of all land and water, or interests in land and water, acquired by the commission."[113]

The commission has acquired properties with wetlands on them but has no specific wetlands program.[114] Whether to acquire a particular property is determined by a case-by-case balancing of the property's cost and wildlife benefits. The commission has attempted to list specific criteria for such acquisitions, but because of disagreement over what those criteria should be has not been able to draw up a comprehensive list.

The Colorado Division of Wildlife holds 817 decreed water rights in the state. The adjudicated beneficial use is usually fish propagation, irrigation, or wildlife. There are 94 decreed rights that directly protect wetland areas.[115] The division holds several water rights at Head Lake and Russell Lakes in the San Luis Valley specifically for wetlands protection. The Division does not have a formal policy for protection of wetlands but considers wetlands protection to fall within its general mission as it relates to the preservation, protection, and enhancement of wildlife.

Natural Areas Program

In 1988 the Colorado legislature enacted legislation creating a "natural areas" program.[116] This legislation recognized that "certain lands and waters of this state representing diverse ecosystems, ecological communities, and other natural features..." are threatened and require special protection.[117] It authorizes the Board of Parks and Outdoor Recreation to establish a program that identifies and designates important natural areas, establishes management plans for the designated areas, and encourages scientific and educational uses of the areas.[118] Designation can only occur upon special agreement with the owner of the land.[119]

The primary benefit of this program is that it will help to identify important natural areas. Protection of these areas depends on cooperative agreements involving the private or public land owner. No regulatory authority is provided. Nor are any funds provided to purchase such areas although the board may accept donations of property or interests in property.[120]

Wetlands are likely candidates for inclusion within this natural areas program. Presumably, the management plan for any designated wetlands would recognize the need to protect the water associated with the area. In fact, there already is one example where this process has been linked to a lake-level appropriation by the Colorado Water Conservation Board--the Mexican Cut Ponds.[121] This is a mountain area containing several natural lakes that have been the subject of study for many years by researchers from the Rocky Mountain Biological Laboratory.

Montana

This section discusses general water law in Montana and the use of appropriative water rights for wetlands, the state instream flow program, and other state programs directly or indirectly protective of wetlands.

General Water Law

In Montana, a person may not appropriate water, or commence the construction of diversion or impoundment works, without applying for and receiving a permit from the Department of Natural Resources and Conservation (DNRC).[122] The criteria for issuance of a permit by the department are listed in Mont. Code Ann. §85-2-311(1)(a-e). The policy of the state is to make water available for appropriation for the maximum benefit of the people with the least possible degradation of the natural aquatic ecosystems.[123] Upon actual application of the water to a beneficial use the permittee may then receive a certificate

of water right.[124]

For the issuance of a permit from the DNRC in Montana, the proposed use of the water must be a beneficial use.[125] Beneficial use in Montana means "a use of water for the benefit of the appropriator, other persons, or the public, including but not limited to agricultural (including stock water), domestic, fish and wildlife, ... and recreational uses."[126]

Appropriative Water Rights

The statutory definition of beneficial use in Montana is significant for wetland preservation issues in two respects. First, the "exclusive enjoyment" requirement of traditional prior appropriation law apparently does not apply to Montana since the benefit may extend to "other persons" or the "public." Secondly, benefits for fish and wildlife, and recreational uses are recognized as beneficial uses of appropriated water.

The Montana Department of Fish, Wildlife, and Parks holds water rights in connection with several state wildlife management areas. In some cases, these rights protect wetlands areas. For example, the Department holds a water right for the Black Butte Swamp in order to protect the marshy habitat favored by bears.[127]

The U.S. Fish and Wildlife Service has about 700 water rights in Montana.[128] No flow rate is associated with these rights. These rights protect uses at the five national wildlife refuges that exist in Montana. The Fish and Wildlife Service has submitted 18 claims for water in the statewide water adjudication that is underway.

Montana's Instream Flow Program

Montana's instream flow program is based on the state's general policy that water resources are to be protected and conserved to "assure adequate supplies for recreational purposes and for the conservation of wildlife and aquatic life."[129] At the heart of the state's instream flow program is a reservation-of-waters statute which allows the state to apply for a reservation of waters for "existing or future beneficial uses or to maintain a minimum flow, level or quality of water throughout the year...."[130] This water may be reserved for both offstream and instream uses and includes recreation, fish and wildlife, and maintenance of water quality.

A reservation must be shown to be in the "public interest,"[131] and the amount of water necessary for its purpose must be specified.[132] All reservations must be reviewed at least once every ten years and may be modified at that time.[133] Therefore, these reserved waters are less secure than appropriations obtained under the state's permitting process.

In connection with the ongoing statewide water adjudication in Montana, the Department has requested reservations of water in approximately 50 basins.[134] In some cases these reservations will protect wetlands.

Montana's Recognition of Wetlands

In Montana, money received from the sale of waterfowl stamps and related artwork is deposited in a special fund "and may be expended only for the protection, conservation, and development of wetlands in Montana."[135] Proposals for the use of the money are developed by the Department of Fish, Wildlife, and Parks, and reviewed by an advisory council appointed by the director of the Department.[136] A variety of projects designed to propagate waterfowl have been implemented through this program.

Other legislative recognition of water-related values beyond traditional consumptive

uses is reflected in the state's "natural streambed and land preservation" legislation.[137] The purpose of this legislation is to protect the bed and banks of streams and lakes from unauthorized development which may adversely affect water quality and use. The statute requires that a developer obtain a permit before beginning construction work on lands within or associated with lakes and streams.

With respect to lakes, a person who proposes to do any work which will alter or diminish the course, current, or cross-sectional area of a lake or its shore must obtain a permit from the local governing body with jurisdiction over the area before beginning the work.[138] Criteria for the issuance or denial of a permit must have been adopted by each local governing body prior to January 1, 1976.[139] Each locality can adopt its own criteria; however, the guidelines must favor the issuance of a permit if the proposed work would not (1) materially diminish water quality, (2) materially diminish habitat for fish and wildlife, (3) interfere with navigation or other lawful recreation, (4) create a public nuisance, or (5) create a visual impact discordant with natural scenic values, as determined by the local governing body, where such values form the predominant landscape element.[140]

With respect to rivers and streams, the statute applies to all projects which physically alter or modify a stream in contravention of the state's policy on such projects.[141] However, the customary and historic maintenance and repair of existing irrigation facilities is exempted if it (i) does not significantly alter or modify the stream in contravention of the policy, or (ii) is the subject of a plan submitted to and approved by the governing authority.[142] Authority over streambed modification projects is held by the conservation district in which the project will take place if one exists; the area's grass conservation district if no conservation district exists; or, if neither type of district exists, the board of county commissioners.[143]

Projects which will modify streams in the state to the detriment of adjacent wetlands may arguably be prevented under these provisions. The conservation district in charge of the area in question would need to consider these provisions before any alteration or modification project would be allowed to be commenced or continued. However, the statute is more oriented toward defined channels than wetlands, limiting its usefulness.

North Dakota

This section discusses a number of areas of North Dakota law related to protection of water for wetlands. First, North Dakota water law is summarized. Opportunities for protection using appropriative water rights, conditioning new water development, making reservations of water, and using specific wetlands programs are then discussed.

General Water Laws

Water rights in North Dakota were originally governed by the riparian doctrine.[144] In 1881 legislators introduced the appropriation doctrine to the state,[145] and in 1905 the legislature reiterated its support for and strengthened appropriative rights.[146] Thus, from 1905 (if not from 1881) until 1963, water rights in North Dakota could be acquired via either the riparian or appropriation doctrines.[147]

In 1963, the legislature repealed the state's riparian rights statute.[148] As a result, riparian rights to use water could no longer be acquired in the state.[149] In the 1968 case of Baeth v. Hoisveen[150] the North Dakota Supreme Court ruled that riparian rights to

the use of water vested only "following withdrawal and application of said [water] to a beneficial use."[151] An actual diversion also is required.[152] Until such use was made, prior appropriators could acquire superior rights. Thus, it should follow that all riparian rights to use water that were not exercised prior to 1963 were extinguished by the statute.[153]

In Baeth the court dealt with rights in an underground stream[154] and did not address the issue of rights in a surface stream. However, in light of the court's conclusion that a landowner could acquire vested riparian rights in water only upon application to a beneficial use, it is likely that the same rule will be applied to riparian rights in surface waters if the issue is brought before the court.[155]

The basic statutory provision governing acquisition of water rights in North Dakota today is §61-01-01. It reads: "[a]ll waters within the limits of the state from the following sources of water supply...belong to the public and are subject to appropriation for beneficial use and the right to the use of these waters for such use, shall be acquired pursuant to the provisions of chapter 61-4."[156] The general requirements are that: (1) acquisition must be by appropriation, (2) it must be for a beneficial use, and (3) it must conform to the code's provisions. Thus, in North Dakota the rights of private appropriators are governed primarily by specific provisions of the North Dakota Century Code.[157]

Appropriative Water Rights

The North Dakota Century Code contains little guidance on the issue of whether appropriative rights can be obtained for wetlands purposes. In addition, the state's case law is devoid of authority on the subject.

The code defines "beneficial use" as "a use of water for a purpose consistent with the best interests of the people of the state."[158] The code does not state whether wetlands preservation falls within this definition. The language of several sections of the code seems to be premised on the inclusion of "fish, wildlife, and recreation"[159] as a beneficial use. For example, in listing the order of preference in granting permits when there are competing applications for water from a source of water insufficient to meet all claims the code includes "fish, wildlife, and other outdoor recreational uses" (albeit as the lowest priority).[160] Because beneficial use is "the basis, the measure, and the limit of the right to the use of water" in North Dakota,[161] the necessary implication is that fish, wildlife, and recreation is a beneficial use within the meaning of the code.

The quantity of water allowable is limited by the extent to which it can be beneficially used.[162] Whether a use of water is beneficial is determined by the state engineer in an administrative hearing.[163] The determination is based on a balancing of the value of the use versus its opportunity costs.

The North Dakota Game and Fish Department holds 36 water rights.[164] The Department is involved in protecting and maintaining approximately 20 wetlands areas for waterfowl habitat. Where a water right is associated with a project, the water is impounded and used to maintain the wetland. Ducks Unlimited has been very active in several of these projects.

The U.S. Fish and Wildlife Service has 28 water rights in North Dakota.[165] Several of these rights play a direct role in creating or restoring a wetland area.

Conditioning New Water Development

North Dakota law provides two methods of conditioning new water development. The first is the public interest requirement of the state's water appropriation procedures and the second is the common law public trust doctrine/state water plan.

In North Dakota any person desiring to appropriate water must first obtain a permit from the state engineer. The only exception is for persons taking water for domestic, livestock, or fish, wildlife, and outdoor recreation purposes.[166] To satisfy this exception, the appropriation must also be for less than twelve and one-half acre-feet per year.[167]

Before granting a permit the engineer must conduct a hearing on the permit application.[168] At this hearing, he must determine whether the proposed appropriation is in the public interest. In making this determination, he must consider its "effect on fish and game resources and public recreational opportunities."[169]

Either the common law public trust doctrine or the state water plan can also be used to restrain new water development in North Dakota. In United Plainsmen Ass'n v. N.D. State Water Conservation Com'n[170] the plaintiff sought an injunction prohibiting the issuance of new water permits for coal facilities until a comprehensive short- and long-term plan for developing the state's natural resources was agreed upon. The North Dakota Supreme Court cited Article XVII, §210 of the state constitution[171] and §61-01-01 of the state code.[172] The court then concluded that this latter provision "express[ed] the Public Trust Doctrine." The application of the doctrine required

> at a minimum, a determination of the potential effect of the allocation of water on the present water supply and future water needs of the state. This necessarily involves planning responsibility. The development and implementation of some short- and long-term planning capability is essential to effective allocation of resources 'without detriment to the public interest in the lands and waters remaining'.[173]

The court went on to state that stronger statutory planning requirements would preempt the public trust doctrine. However, until such requirements were in place, the doctrine would remain a viable limit on water permits:

> The Legislature has indicated its desire to see such planning take place, although not in mandatory language [in §61-1-26(4)]. Until the Legislature speaks more forcefully, we think the Public Trust Doctrine requires, as a minimum, evidence of some planning by appropriate state agencies and officers in the allocation of public water resources.[174]

In North Dakota State Water Com'n v. Bd. of Managers[175] the court followed United Plainsmen. The issue in the case was whether the water commission could control the drainage of Rush Lake. Citing to United Plainsmen, the court asserted that the state held its navigable waters in trust for its citizens.[176] The court then stated that the state did not lose its control over such waters merely because the lake bed was subject to private ownership. Rather, the public trust doctrine gave the state, acting through the

water commission, continuing authority to control the drainage of the lake.[177]

In Bottineau County Water Resource Dist. v. North Dakota Wildlife Soc'y,[178] the court discussed the relationship of the public trust doctrine to the drainage of wetlands. The issue was whether the state engineer's grant of a drainage permit to Bottineau had been proper. The drainage program's possible effects had been studied and debated for nearly a decade. The engineer's decision contained a detailed analysis of the evidence, discussed the project's potential impacts, and concluded that the drain should be approved subject to various conditions. Assuming without deciding that the public trust did apply to the drainage of wetlands on privately owned property, the court ruled that the engineer had met his obligations under the doctrine. The doctrine was intended "to only require 'controlled development of resources rather than no development'"[179]

Water Reservations

The North Dakota Century Code also grants the state engineer the power to reserve or withdraw water from appropriation. The key language reads as follows:

> [w]henever it appears necessary to the state engineer, or when so directed by the [water] commissioner, he may by regulation (a) reserve and set aside water for beneficial utilization in the future, and (b) when sufficient information and data are lacking to allow for the making of sound decisions, withdraw various waters of the state from additional appropriations until such data and information are available.[180]

Prior to adoption of any regulation under this section the state engineer must conduct a public hearing in every county in which waters affected by the regulation are located.[181] Once again, the statute's language indicates that action under it is discretionary; however, regulations adopted pursuant to it are subject to the state's general provisions on administrative procedures (codified at chapter 28-32 of the Century Code).[182]

Wetland Protection Programs

North Dakota does not have an instream flow statute. However, it does have two programs which can be used to protect wetlands. The first is the Wetlands Statute and the second is the Waterbank Program.

North Dakota's Wetlands Statute, codified as chapter 61-32 of the North Dakota Century Code, was passed in 1987. The statute states that any person who plans to drain a wetland area of 80 acres or more must first obtain a permit from the state engineer. The permit cannot be granted until the state's water resources policy[183] has been "considered" and an investigation showing that the water which will be drained from the wetland will not flood or adversely affect downstream landowners is completed. In addition, the permit cannot be approved until the engineer and the state water commission jointly find that the wetlands to be drained will be replaced by "replacement wetlands" equal in acreage to the drained land.[184] The term "replacement wetland" is defined as "either restoration of previously drained natural wetland or manmade wetlands which are not used for mitigation of any other project."[185] Man-made wetlands must have "material wildlife values" to satisfy the replacement requirement.[186]

The statute's administrative guidelines are as follows: the person who proposes a drainage project for which a permit is required must pay at least ten percent of the costs of acquiring and constructing replacement wetlands. The remaining portion of the costs can be paid by federal, state, or private interests, or any combination thereof.[187] Approximately fifty percent of the replacement wetlands must be located either in the county in which the drainage is to be located or in contiguous counties, with the rest being located anywhere in the state.[188] Also, land for replacement wetlands cannot be condemned,[189] and when land is removed from a local tax base to protect wetlands the entity which purchases the land must replace the lost tax revenue.[190]

The Wetlands Statute also established a wetlands bank. The acreages of all replacement wetlands constructed after January 1, 1987 must be carried as a credit in the bank, and the acreages of all wetlands drained after that date must be charged as a debit against the credit balances. Debit balances to the wetlands bank are limited to 2,500 acres, with drainage of wetlands for which a permit is not required being exempted.[191]

The Wetlands Statute apparently includes §404 mitigation projects within its reach. As previously mentioned, replacement wetlands do not include lands "used for mitigation of any other project."[192] However, contribution by §404 developers to the costs of obtaining replacement wetlands is, of course, encouraged. Cooperation with such developers is mandatory.[193]

North Dakota also has a Waterbank Program.[194] This statute authorizes the commissioner of agriculture to enter into agreements with landowners to conserve wetlands. Under such arrangements the landowner agrees to implement a wetlands conservation and development plan for his land in return for an annual payment of a sum determined to be "fair and reasonable" compensation for the obligations undertaken by the owner.[195] Lands defined as type 3, 4, or 5 wetlands by the United States Fish and Wildlife Service on which drainage would be feasible and practical are authorized for protection under the program.[196] The commissioner is "authorized to receive funds, not exceeding one million dollars in aggregate total...from any public or private source" to help carry out this program.[197]

The statute's language implies great discretion on the part of the agriculture commissioner. No provision in the statute requires the commissioner to exercise his authority to protect wetlands. Rather, the statute merely grants such protective authority.

In addition, one should be aware of §61-15-03 of the state code. This provision states, in part, that "[t]he authority, control, and supervision of all water and wildlife conservation projects and wildlife reservations shall be vested in the state engineer."[198] Pursuant to this statute, the state engineer is currently drafting regulations for the restoration of wetlands.

South Dakota

In this section, South Dakota water law is summarized briefly. State programs providing protection for wetlands are discussed. Opportunities for protecting wetlands through review of appropriation of water are then considered.

General Water Law

As in North Dakota, South Dakota water law contains elements of both appropriation and riparianism. Until 1955, water rights could be acquired via either

method, with riparian priority dating from the first entry upon the riparian land with intent to obtain a patent.[199] In 1955, the state legislature passed a bill providing that thereafter, except for "vested" riparian rights, the right to use water could only be acquired by appropriating water under the state's permitting statute.[200] As a result, riparian rights which had not "vested" by July 1, 1955 were lost.[201] With reference to riparian rights, the term "vested" was defined to include "[t]he right of a riparian owner to continue to use water actually applied to any beneficial use on March 2, 1955, or within three years immediately prior to that date to the extent of the existing beneficial use made of the water",[202] "[t]he right of a riparian owner to take and use water for beneficial purposes if the owner was engaged in the construction of works for the actual application of the water to a beneficial use on March 2, 1955, provided the works were completed and water was applied to use within a reasonable time thereafter",[203] and "[r]ights granted before July 1, 1955 by court decree."[204]

On its face, the 1955 legislation appears to operate prospectively; there is no indication that it was intended to reduce, redefine, or in any other way limit riparian rights which "vested" prior to July 1, 1955.[205] However, in the case of Belle Fourche Irrigation District v. Smiley,[206] the South Dakota Supreme Court severely limited the existence of vested riparian rights. In Smiley, the defendant riparian had irrigated his land beginning in 1953. There also was testimony that prior owners had irrigated the land as early as 1902, but such use apparently ceased prior to Smiley's purchase of the property.[207] The Supreme Court never directly discussed the basis for determining a riparian priority date in riparian-appropriator conflicts. However, on remand it upheld the trial court's determination of a 1953 priority for Smiley.[208] Thus, the case established that the priority date for riparian rights must be determined by reference to the beginning date of the latest continuous application of water to beneficial use, not by reference to when the land was homesteaded.[209] Smiley has been criticized;[210] however, it is binding South Dakota law.

State Wetlands Protection Programs

South Dakota does not possess strong state programs for the protection of wetlands. A statutory provision allowing the state Department of Game, Fish, and Parks to acquire and hold property is the primary means of wetlands protection for the state. The relevant sections are as follows: "[t]he department of game, fish, and parks shall have the power, on behalf and in the name of the state, to acquire public or private property by gift, grant, devise, purchase, lease, or condemnation proceedings, and improve the same for the purpose of exercising the powers granted in this title"[211] and "[t]he department of game, fish, and parks shall have the power to acquire by any means or methods as specified in §41-2-19 [quoted above] any public or private real property especially desirable for public shooting areas or for the purposes of water conservation or recreation and to develop and improve the same for the purposes herein stated."[212] The department has used this power to acquire water rights.

The South Dakota Department of Game, Fish, and Parks holds about 450 water rights, about 400 for recreation.[213] The Department does hold a few rights for wildlife propagation that are used to create wetlands. For example, at Renzihausen Slough water is pumped through control gates and dikes, then distributed over the land to create a desirable habitat for ducks.

The U.S. Fish and Wildlife Service is involved in the protection of wetlands in

South Dakota. It holds 24 water rights for fish and wildlife purposes in that state.[214] In some cases these water rights relate to wetlands protection. For example, the Fish and Wildlife Service purchased land in South Dakota containing about 84 percent of a natural wetland located in a closed basin.[215] It then applied for and obtained a storage right to its proportionate share of the water in the marsh. The marsh's ordinary water level was used to determine its capacity.

South Dakota law authorizes the Board of Water and Natural Resources, along with the Department of Game, Fish, and Parks, to designate rivers or sections of rivers as wild, scenic, and recreational rivers "upon which no development shall occur which is detrimental to the natural and scenic beauty of the designated river."[216] However, no rivers are currently designated as wild and scenic, and prospects for the future are uncertain.[217]

Other possibilities for state protection of instream flows are even more problematic. It has been argued that the state might be able to use riparian rights to protect instream flows.[218] This proposal involves claiming riparian rights for riparian parklands and satisfying the requirement of application to beneficial use[219] by using a sort of a reserved rights argument, i.e. that the water was actually applied to a beneficial use in 1927 when the Department of Game, Fish, and Parks was created.[220]

Conditioning Private Appropriative Rights

South Dakota law offers three methods of conditioning private appropriative water rights. The first is the permitting statute's public interest review requirement; the second is the state water plan; and the third is the Environmental Protection Act of 1973.

South Dakota requires a permit to appropriate water.[221] A permit may be issued only if, among other things, the proposed beneficial use is in the public interest.[222] Whether this requirement is satisfied is determined in a public hearing.[223] The burden of proof apparently is on the applicant, as an application can be approved only if the Water Management Board determines that the requirements have been met.[224]

The South Dakota Water Management Board has begun to use its authority to scrutinize applications for new appropriations for consideration beyond availability of unappropriated water. For example, in 1987 the board imposed a number of conditions, primarily related to water quality protection, on a permit for water use associated with a proposed hog-feeding facility.[225] In 1989, the board denied an application by a mining company for an appropriation that would have harmed a valuable cold water fishery.[226] In 1989, the board approved an application for a right to irrigate 85 acres against the objection of a nearby rural water system that was concerned about any addition of nitrates to the groundwater in the area.[227] The board directed the state engineer to promulgate an extensive water management plan for prevention of groundwater contamination due to fertilizer, insecticide, and herbicide use. Thus the board has shown a willingness to consider a broader set of concerns in reviewing applications for new water rights. Conceivably, wetlands could receive consideration under the board's present approach.

The second method of conditioning applications for private water rights is to insist upon compliance with the state water plan.[228] The South Dakota Water Plan is divided into two sections, called the Water Resources Management System and the Water Facilities

Plan. The Water Resources Management System contains big-ticket projects requiring special state authorization or financing while the Water Facilities Plan includes smaller undertakings which can be funded under the Board of Water and Natural Resources' own budget.[229]

In order to receive state funding a project must first be placed on one of the branches of the State Water Plan. In order to be considered for the water plan a project must meet certain eligibility criteria established by the Board of Water and Natural Resources. These criteria are used as guidelines for water development districts and the state to follow when ranking projects in the plan.[230] Only projects involving state funding must be included in the water plan.[231]

Currently the state water plan does not consider the effects of project development on wetlands. However, if this factor were to be included it could provide added protection for these areas from the impacts of state-supported water development in North Dakota.

The Environmental Protection Act of 1973[232] provides a third possible method of conditioning private appropriative water rights. In South Dakota, the public trust doctrine has not developed to the point of restricting the acquisition or exercise of water rights.[233] However, the Environmental Protection Act contains trust language. Specifically, it grants a private right of action against any legal entity "for the protection of the air, water, and other natural resources and the public trust therein from pollution, impairment or destruction."[234] The right of action does not apply if the environmental harm could have been addressed in an agency proceeding unless the agency refused to hear the complaint at the hearing.[235] The act provides protection against conduct which pollutes, impairs, or destroys natural resources or the public trust therein, or is likely to have such an effect, unless there is no "feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare."[236]

UTAH

Following a general summary of Utah water law, this section considers the use of water rights for wildlife habitat, public interest review, withdrawals of water, instream flow protection, and percolating groundwater law as means of protecting water for wetlands in Utah.

General Water Law

To obtain a valid water right in Utah an application must first be made to the state engineer.[237] Such application for the use of unappropriated waters must be for some "useful and beneficial" purpose. The manner of acquisition of an appropriative water right is construed strictly in Utah, and state water law excludes every other means of appropriation except by application to the state engineer.[238] The requirements for approval of an application by the state engineer are contained in Utah Code Ann. §73-3-8.

Although many states have relaxed the actual physical diversion requirement when it is shown to be unnecessary to achieve the intended beneficial use, Utah has a substantial body of case law construing the requirement strictly. In these cases, the failure to divert proved fatal to asserted water rights and to the possession and use of the waters.

In Bountiful City v. DeLuca, the Utah Supreme Court held that an actual diversion from a natural stream channel was necessary for a valid water right.[239] In this case, the

court held that no right to the waters was established by the owner of riparian lands by merely permitting his livestock to drink directly from the creek.

In Duchesne County v. Humphreys, the court held that no water right was conferred upon an applicant until the steps for beneficial use were completed, along with approval of the application by the state engineer.[240] The court noted that no actual diversion of the water had occurred and, therefore, no water right was validly obtained.

In a 1973 eminent domain case, the Utah court held that because there had been no actual physical diversion of the water for beneficial use, the state owed no damages to compensate for a lost water right when it exercised its condemnation power over the land in question.[241] Although this case may be viewed as a failure to apply the water to beneficial use, it also serves to illustrate the court's continued observance of the actual diversion requirement for a private appropriative right to be valid in Utah.

As in most prior appropriation states, beneficial use is the basis, measure, and limit of all rights to use water in Utah.[242] No one may acquire the right to use more water than is necessary, with reasonable efficiency, to satisfy the beneficial requirements for which the water was appropriated.[243] In dicta, the Utah Supreme Court has suggested that "[w]e are not disposed to hold that any use of water tending to supply man or domestic animals with food is not beneficial."[244]

The exclusive enjoyment requirement applies to water rights in Utah. This requirement dates from the 1917 case of Lake Shore Duck Club v. Lake View Duck Club.[245] In that case, the issue was whether the plaintiff could obtain a water right to irrigate land on the public domain for the purpose of producing food for wild water fowl. The Utah Supreme Court refused to grant the permit because it was "decidedly of the opinion that the beneficial use contemplated must be one that inures to the exclusive benefit of the appropriator and subject to his complete dominion and control."[246] Because the plaintiff had exclusive rights to neither the land nor the birds, it failed to meet this requirement.

Water Rights for Wildlife

Utah law also allows DWR to acquire and manage property for wildlife purposes. Section 23-21-1 of the state code authorizes DWR to acquire lands, waters, and rights-of-way by any lawful means. After acquisition, such property can be used for the division's authorized activities, as outlined by the code and the rules and regulations of the Wildlife Board.[247] In addition, the code empowers DWR to use any and all unsurveyed state-owned lands below the 1855 meander line of the Great Salt Lake in certain named townships "for the creation, operation, maintenance, and management of wildlife management areas, fishing areas, and other recreational activities."[248]

Utah's Division of Wildlife Resources has been active in obtaining water rights. The Division holds water rights for seven waterfowl management areas encompassing about 9,000 acres.[249] The rights provide for one cubic foot of water for every 100 acres in the management areas. These rights have protected some wetlands connected to the Great Salt Lake ecosystem, notably in Ogden Bay and Tempe Springs.

Of the 14 water rights held by the U.S. Fish and Wildlife Service in Utah, four serve to preserve a wetland.[250] For example, in the Fish Springs National Wildlife Refuge, water is impounded and distributed to create marsh areas for the support of tules, bulrushes, and other aquatic plants valuable

for migratory birds. A complex water control and distribution system is used to provide water to the 4,000 acre habitat within the refuge.

Public Interest Review

Utah water law requires the state engineer to reject an application for a water right which would prove detrimental to the public welfare.[251] If the engineer, because of information in his possession obtained either by his own investigation or otherwise has reason to believe that the proposed appropriation will "unreasonably affect public recreation or the natural stream environment, or will prove detrimental to the public welfare," it is his duty to withhold approval or rejection of the application until he has investigated the matter.[252]

The statutory section governing applications for a change of water right[253] does not explicitly require the state engineer to consider these factors. However, in the 1989 case of Bonham v. Morgan,[254] the Utah Supreme Court ruled that the engineer is required to undertake the same investigation in permanent change applications that the statute mandates in applications for water appropriations. Thus, change of water rights now are subject to public interest review by the state engineer.

Withdrawal of Water From Appropriation

Water from any source can be withdrawn from appropriation in Utah when, in the judgment of the governor and the state engineer, the public welfare demands such withdrawal. The procedure calls for the engineer to recommend withdrawal to the governor, who then may by proclamation suspend the public right of appropriation.[255] Waters withdrawn from appropriation can be restored by proclamation of the governor upon the engineer's recommendation.[256] In light of the fact that Utah's waters are almost entirely appropriated, the applicability of this provision is limited.

Utah's Recognition of Instream Flow Values

Utah's scheme for instream flow protection is rather limited. Utah law contains two provisions which allow for the protection of instream flow values. The first is the state's instream flow law; the second is the state's channelization statute.

Utah's instream flow law allows the Division of Wildlife Resources (DWR) to file applications for permanent or temporary changes in the point of diversion of water rights to protect instream flows in natural channels which are necessary for the preservation or propagation of fish within a designated section of the stream.[257] This statutory recognition of instream flow rights does not allow enlargement of the water right sought to be changed nor may the change impair any vested water right.[258]

Only certain water rights can be changed to instream flow use: perfected water rights owned by the DWR; legislatively purchased DWR water rights; leased, donated or exchanged DWR water rights; and appurtenant water rights acquired with real property owned by the DWR.[259] To acquire title or a long-term interest in a water right for the purpose of instream flows the DWR must first obtain legislative approval.[260] This requirement is in addition to approval by the state engineer and may prove to be cumbersome in any attempt to establish an extensive instream flow program.

Finally, and perhaps most importantly, the DWR cannot appropriate unappropriated water for the purpose of providing instream flows.[261]

The state's statute on channelization of streams provides a second method of limiting incursions on wetlands. The statute states that no state agency, city, county, corporation, or private citizen may relocate any natural stream channel or alter the bed or banks of such a stream without first obtaining written permission from the state engineer.[262] The engineer must grant such permission unless he finds that the proposed change will (1) impair vested water rights, (2) unreasonably or unnecessarily adversely affect any public recreational use or the natural stream environment, (3) unreasonably or unnecessarily endanger aquatic wildlife, or (4) unreasonably or unnecessarily diminish the natural channel's ability to handle high water flows.[263] The engineer also can approve an application in whole or in part upon any reasonable terms that will protect these four values.[264]

Percolating Groundwater

Utah has developed a special status for certain water that could be relevant to a wetlands situation. Utah's statutes state that "[a]ll water of this state, whether above or under the ground are hereby declared to be the property of the public...."[265] However, percolating groundwater which supports surface vegetation is excepted from this definition.

This distinction dates from the 1949 case of Riordan v. Westwood.[266] In that case, the issue was whether Westwood could appropriate water from a small spring on Riordan's land. The water did not flow in a definable channel and only reached the surface during heavy rainstorms. However, it did support "a few brush, one or two patches of native grass, and one or two scrubby cottonwood trees."[267] The court reasoned that in enacting the statutory provision defining waters of the state, the legislature had intended to declare, as far as was legally possible, that percolating waters were public property open to appropriation.[268] However, the legislature could not "by such an enactment change from private to public ownership waters which by their nature were a part of the soil and as such belonged to the [landowner]."[269] The court resolved the issue by ruling that to the extent the water benefitted the soil by supporting the vegetation it could not be appropriated.[270] However, "[w]aters, even though diffused and percolating through the soil, which do not sustain plant life or otherwise beneficially affect the land through which they course are not necessarily a part thereof and to the end that they might be placed to a beneficial use should belong to the public and be subject to appropriation the same as other waters."[271]

McNaughton v. Eagon[272] reaffirmed Riordan. In McNaughton, the court stated that "[u]nder [Riordan] the only waters of this state which are naturally diffused and percolating through the ground and therefore belong to the owner of the soil in which they are found and are not subject to appropriation are limited to such waters which by their presence in the soil confer a natural benefit on the land which will be destroyed by the waters being appropriated."[273] Later, in Melville v. Salt Lake County,[274] the court recognized Riordan's continuing validity by distinguishing it: "[t]here is no evidence that there is any plant life supported by this water nor any other natural benefit conferred on the land thereby. This water would therefore be subject to appropriation."[275]

This peculiar limitation on appropriation in Utah Law could have applicability to wetlands protection. If the water supporting wetlands vegetation can be shown to fall within this general category, it will be unavailable for appropriation. However, we found no example of its use for this purpose.

Wyoming

This section begins with a general discussion of Wyoming water law and the use of appropriative water rights to support wildlife habitat areas. Next the Wyoming instream flow program is discussed. Finally, an example of wetlands protection involving existing water rights in Wyoming is provided.

General Water Law

In Wyoming, the right to use the water of the state may be acquired by the beneficial application of water and compliance with the laws of the state relating thereto. Application for permit must be made to the state engineer for approval.[276] An appropriation is not valid unless a permit is secured by conformance with the statutory guidelines.[277] Upon approval by the state engineer, the applicant may proceed with the necessary steps towards perfecting the appropriation and application of the water to a beneficial use.

An application for a water right must pass a public interest review before it can be approved. This requirement is based on Wyo. Stat. 41-4-503, which states that where an application "threatens to prove detrimental to the public interest, it shall be the duty of the state engineer to reject such application and refuse to issue the permit asked for."[278]

Any change in point of diversion must be accompanied by a petition to the state engineer and is subject to a restrictive version of the "no injury" rule.[279] Wyoming law explicitly requires an actual diversion. The state's instream flow statute specifies that "[n]o person other than the state of Wyoming shall own any instream flow water right."[280]

Beneficial use, in Wyoming, is the basis, limit and measure of the right to use water.[281] In a 1979 case, the Wyoming Supreme Court stated that beneficial use is dependent upon the circumstances of each case.[282] The requirement is not viewed as necessary only at the time of the appropriation, but is a concept which is a continuing obligation in order for the appropriative right to be valid. The requirement serves as a limit to the water right as no appropriator shall be entitled to use more water than can be beneficially applied to the land.[283]

One interesting aspect of Wyoming's statutory scheme is a "limit on volume" in defining a water right. One cubic foot per second per 70 acres of land is the maximum appropriation of a direct flow water right.[284] However, use in excess of this amount is not prima facie evidence of waste,[285] and such a limit is not applicable to storage rights.[286]

Water rights must be kept in beneficial use to be maintained. When the holder of a water right fails to beneficially use the right for five successive years, he is considered as having abandoned the right.[287]

The Wyoming Fish and Game Commission holds approximately 110 appropriative water rights in the state.[288] Most of these rights are for fish propagation, either instream or in off-stream settings. In one case, the Commission owns land with a wetland area and a junior right to Torry Creek which it may be able to use to maintain the wetland. The Commission has developed wetlands habitat for waterfowl management in at least two places in the state--Yellow Tail and Ocean Lake.

Wyoming's Instream Flow Statute

Wyoming's instream flow statute was passed in 1986. Because of its recent origin, no judicial decision interpreting the statute's language exists.[289]

The statute declares that appropriation of water for instream flows, as well as storage of water to provide a recreational pool or source of supply for instream releases, are beneficial uses of the state's water.[290] This language is limited by four provisions. First, instream flow decrees can only cover specific stream segments.[291] Second, only the State of Wyoming can own an instream water right.[292] Third, an instream permit cannot be issued if the instream flow would be included in the consumptive share of water allocated to Wyoming under any interstate compact or United States Supreme Court decree, or would result in more water leaving the state than the amount required by the same.[293] Finally, instream decrees are limited to the quantity of water necessary to protect fisheries.

Storage rights for instream flows can be used to establish or maintain new or existing fisheries,[294] while direct flow decrees can only be used to maintain or improve existing fisheries.[295] While this language allows protection of all types of fisheries, it does not permit the consideration of wildlife, aesthetics, or other values.[296]

Water for instream water rights can be acquired in two ways. First, as mentioned above, water can be appropriated on either a direct flow or storage basis. The procedure for appropriating water for an instream right begins with the Game and Fish Commission (GFC), which notifies the Water Development Commission (WDC) annually of specific stream segments which GFC considered to have the most critical need for instream flows.[297] WDC then files applications in the name of the state of Wyoming for permits to appropriate the flows recommended by GFC.[298] Immediately after filing an application WDC must conduct a feasibility study including the quantity of water needed to fulfill the instream flow's purposes (i.e. the maintenance or establishment of fisheries), the cost of providing and the availability of sites for any needed storage capacity, and any other findings WDC deems important.[299] Prior to granting or denying the application, the state engineer must conduct any investigation deemed necessary to evaluate the proposal and hold a public hearing. At the hearing, GFC presents its studies supporting the application and any interested party can comment on the proposal. The state engineer may place a condition on the permit, if one is granted, requiring a review of the continuation of the permit as an instream flow.[300]

Second, the state can acquire existing rights by voluntary transfer or gift for the purpose of providing instream flows.[301] Upon receipt of such a right, the state must change its designated use in accordance with §41-3-104 of the state code which limits changes to historic consumptive use and states that a change cannot interfere with or impair the value of existing water rights.[302] To emphasize the voluntary nature of these transfers, the law explicitly states that water rights cannot be condemned to provide instream flows.[303]

Wyoming's instream flow program is narrowly drawn. By its terms it is limited to the maintenance of fisheries. Its applicability to wetlands protection, therefore, would only be incidental to its use for maintaining minimum flows of water required to support fish.

The Casper-Alcova Example

The City of Casper has worked out an agreement with the Casper-Alcova Irrigation District by which it will pay for improvements to the district's water delivery system in return for rights to use the water that is

conserved.[304] The water is supplied to the district from the Kendrick Project by the Bureau of Reclamation. Because the Bureau had to approve this arrangement, an environmental assessment was performed. This assessment identified 27 distinct seep areas related to the district's water delivery system. Five of these areas involved vegetative communities identified as wetlands. Because of the value of these areas, it was agreed that the canals and laterals would not be rehabilitated along these stretches.

In effect, this was a change of water right procedure. The protection of wetlands did not result from the state review but as a consequence of the need for NEPA review of a federal agency action. It demonstrates the role that NEPA can play in situations involving federal actions.

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ENDNOTES TO APPENDIX

89. Colo. Rev. Stat. §37-92-103(4)(1973).

90. Id. at §37-92-102(3)(1973 and Supp. 1989.) ("No other person or entity shall be granted a decree adjudicating a right to water or interests in water for instream flows...for any purpose whatsoever.").

91. Id. at §37-92-102(3)(a-d)(Supp. 1989).

92. Id. at §37-92-102(3)(c)(Supp. 1989).

93. Id. at §37-92-102(3)(Supp. 1989).

94. Id.

95. Jencsok and Merriman, Administrative Procedures for Establishing Instream Water Rights in Colorado (located in appendix to Shupe, Colorado's Instream Flow Program: Protecting Free-Flowing Streams in a Water Consumptive State, in Instream Flow Protection in the West 249 (1989).

96. "No claim for a water right may be recognized or a decree therefor granted except to the extent the waters have been diverted, stored, or otherwise captured, possessed, and controlled and have been applied to a beneficial use, but nothing in this section shall affect appropriations by the state of Colorado for minimum streamflows as described in section 39-92-103(4)." Colo. Rev. Stat. §37-92-305(9)(a)(Supp. 1989).

97. Id. at §37-92-103(3)(1973).

98. Concerning the Application for Water Rights of the Upper Gunnison River Conservancy District, Cases Nos. 86-CW-202 and 86-CW-203, May 5, 1988.

99. Colo. Const. art. 16, §6.

100. Upper Gunnison River Conservancy District at 5.

101. Colo. Rev. Stat. §37-92-103(11) (1973).

102. Colo. Rev. Stat. §37-92-102 (2) (1973). See also, MacDonnell, Colorado's Law of "Underground Water": A Look at the South Platte Basin and Beyond, 59 University of Colorado Law Review 579 (1988).

103. Brown, When Worlds Collide - The Gravel Pit Evaporation Conflict 18 Colo. Law. 237 (1989).

104. Colo. Rev. Stat. §37-90-107 (6) (A) (I) (Supp. 1990).

105. Id. at §37-90-137(11) (a) (I).

106. G. Vranesh, 1 Colorado Water Law §2.6 (1987).

107. Colo. Rev. Stat. §§37-92-101 to -606 (1983 and Supp. 1989).

108. 167 Colo. 320, 447 P.2d 986 (1968).

109. 187 Colo. 181, 529 P.2d 1321 (1975).

110. 690 P.2d 823 (Colo. 1984).

111. Id. at 828.

112. Colo. Rev. Stat. §33-1-105(a)(1984 Repl.). In Southeastern Colorado Water Conservation District v. Ft. Lyon Canal Co., 720 P.2d 133 (Colo. 1986), the Colorado Supreme Court stated that this provision "specifically empowers [the division of wildlife] to purchase water rights." Id. at 142. Thus, the Court upheld the division's purchase of water rights shares in a mutual ditch company for the purpose of creating a permanent wildlife and recreational pool in John Martin Reservoir.

113. Colo. Rev. Stat. §33-1-107 (1984 Repl.).

114. Telephone interview with Grady McNeil, Colorado Division of Wildlife, October 25, 1989.

115. Printout of water rights provided by the Division of Wildlife, July 17, 1990 with accompanying letter from Patty Mercer.

116. Colo. Rev. Stat. §§33-33-101 et seq. (Supp. 1989).

117. Id. at §33-33-102.

118. Id. at §33-33-105.

119. Id. at §33-33-108.

120. Id. at §33-33-105 (1) (a) (IV).

121. Wigington, Update on Market Strategies for the Protection of Western Instream Flows and Wetlands, NRLC Occasional Paper (August 1990) at 15-16.

122. Mont. Code Ann. §85-2-302(1983).

123. Id. at §85-2-101(3) (1973).

124. Id. at §85-2-315(1)(1983).

125. Id. at §§85-2-301(1) & 85-2-311(1)(d).

126. Id. at §85-2-102(2)(a)(1985).

127. Personal communication with Jeff Herbert, Montana Department of Fish, Wildlife, and Parks, July 13, 1990.

128. Personal communication with Jim Kindrel, Records Division, Montana State Engineer's Office, July 11, 1990.

129. Mont. Code Ann. §85-1-101 (5) (1987).

130. Id. at §85-2-316(1987).

131. Id. at §85-2-316 (4)(a)(i)(1987).

132. Id. at §85-2-316 (4)(a)(iii)(1987).

133. M. McKinney, The Protection of Instream Flows in Montana: A Legal-Institutional Perspective, in **Instream Flow Protection in the West** 292 (1989).

134. Personal communication with Jeff Herbert, Montana Dept. of Fish, Wildlife and Parks, July 13, 1990.

135. Mont. Code Ann. §87-2-412(2) (1989).

136. Id. at §2-15-3405.

137. Id. at §75-7-101 et seq. (1975).

138. Mont. Code Ann. § 75-7-204 (1989)

139. Id. at §75-7-207 (1).

140. Id. at §75-7-208.

141. Id. at §75-7-103 (5) (A). The policy statement reads, "[it] is the policy of the State of Montana that its natural rivers and streams and the lands and property immediately adjacent to them within the state are to be protected and preserved to be available in their natural or existing state and to prohibit unauthorized projects and in so doing to keep soil erosion and sedimentation to a minimum, except as may be necessary and appropriate after due consideration of all factors involved. Further, it is the policy of this state to recognize the needs of irrigation and agricultural use of the rivers and streams of the State of Montana and to protect the use of water for any useful or beneficial purpose as guaranteed by [the state constitution]." Id. at 75-7-102.

142. Id. at §75-7-103(5) (b).

143. Id. at §75-7-111.

144. Beck & Hart, The Nature and Extent of Rights in Water in North Dakota, 51 N.D. L. Rev. 249, 251 (1974) (hereafter Beck & Hart).

145. Id. at 253-254.

146. Id. at 256.

147. Id. at 257.

148. Id.

149. Id. at 260; Volkmann v. City of Crosby, 120 N.W. 2d 18 (N.D. 1963).

150. 157 N.W. 2d 728 (N.D. 1968).

151. 157 N.W. 2d at 732.

152. Id. at 732 ("[t]here is no absolute ownership of groundwater...which has not actually been diverted and applied to a beneficial use.").

153. Beck & Hart at 261.

154. Baeth, 157 N.W. 2d at 729.

155. Beck & Hart at 262.

156. N.D. Cent. Code §61-01-01 (1985).

157. Beck & Hart at 264.

158. N.D. Cent. Code §61-04-01(1)(1985).

159. Defined in §61-04-01(4) as "the use of water for the purposes of propagating and sustaining fish and wildlife resources and for the development and maintenance of water areas necessary for outdoor recreation activities."

160. N.D. Cent. Code §61-04-06.1 (1985).

161. Id. at §61-04-01.2.

162. N.D. Cent. Code §61-01-01.2 (1985).

163. Id. at §61-04-06.

164. Personal communication with Milton Lindvig, North Dakota State Engineer's Office, July 12, 1990.

165. Personal Communication with Skip Ladd, U.S. Fish and Wildlife Service, Denver, July 1, 1990.

166. According to Rosie Sand of the state engineer's office, examples of this exception could include a Nature Conservancy preserve or a hunting lodge acting to protect a marsh upon which it is dependent. All permitting requirements must be met to establish such a right. Telephone interview, October 15, 1989.

167. N.D. Cent. Code §61-04-02. Although the state does not require a permit in this situation, Rosie Sand of the state engineer's office stated that the state would be unlikely to protect an unpermitted use in a dispute between two users because the priority of an unpermitted use is hard to prove.

168. Id. at §61-04-06. The statute does not specify whether the hearing must be public.

169. Id. at §61-04-06(4)(c).

170. 247 N.W. 2d 457 (N.D. 1976).

171. "All flowing streams and natural water courses shall forever remain the property of the state for mining, irrigating, and manufacturing purposes."

172. "All waters within the limits of the state from the following sources of water supply, namely: [surface water except for diffused surface water, underground water, return flow and water artificially drained, and all water in "noncontributing drainage areas" except for "privately owned water"] belong to the public and are subject to appropriation for beneficial use and the right to the use of these waters for such use, shall be acquired pursuant to the provisions of chapter 61-04."

173. United Plainsmen, 247 N.W. 2d at 462.

174. Id. at 463.

175. 332 N.W.2d 254 (N.D. 1983).

176. Id. at 258.

177. Id.

178. 424 N.W.2d 894 (N.D. 1988).

179. Id. at 903 (quoting United Plainsmen, 247 N.W. 2d at 463).

180. Id. at §61-04-31(1).

181. Id. at §61-04-31(2).

182. Id. at §61-04-31(3).

183. North Dakota's water resources policy is codified at §61-01-26 of the North Dakota Century Code.

184. N.D. Cent. Code §61-32-03 (1985 and 1987 Supp.).

185. Id. at §61-32-02(7).

186. Id. at §61-32-04(5).

187. Id. at §61-32-04(4).

188. Id.

189. Id. §61-32-04(2).

190. Id.

191. Id. at §61-32-05.

192. Id. at §61-32-02(7).

193. See Id. at §61-32-04(4) ("Federal, state, and private wildlife and water entities shall cooperate and work together to...perform...tasks necessary...to meet the replacement requirements."); Id. at §61-32-09 ("The commissioner shall work with the governor, United States fish and wildlife service, nonprofit conservation organizations, and any other...organization or citizen to develop additional funding to implement [the wetlands statute].").

194. N.D. Cent. Code chap. 61-31 (1985).

195. Id. at §§61-31-04 & 61-31-05.

196. Id. at §61-31-03.

197. Id. at §61-31-10.

198. N.D. Cent. Code §61-15-03 (1985).

199. Garton, South Dakota's System of Water Management and its Relation to Land Use and Economic Development, 21 S.D.L. Rev. 1 at 17 (1976) (citing Redwater Land and Canal Co. v. Jones, 27 S.D. 194, 130 N.W. 85 (1911); Stenger v. Tharp, 17 S.D. 13, 94 N.W. 402 (1903); Lone Tree Ditch Co. v. Cyclone Ditch Co., 15 S.D. 519, 91 N.W. 352 (1902); Hutchins, Riparian-Appropriation Conflicts in the Upper Midwest, 38 N.D. L. Rev. 278, 295 (1962)) [hereinafter cited as Garton].

200. 1955 S.D. Laws ch. 430 (codified in scattered sections of S.D. Codified Laws Ann. title 46).

201. Garton at 17-18.

202. S.D. Codified Laws Ann. §46-1-9(1)(1987 Revision).

203. Id. at §46-1-9(3).

204. Id. at §46-1-9(4).

205. Garton at 18. Section 46-1-10 of the code provides that "[a]ll vested rights as defined in §46-1-9 acquired before July 1, 1955 are hereby in all respects validated."

206. 84 S.D. 701, 176 N.W. 2d 239 (1970); reh'g denied, 87 S.D. 151, 204 N.W. 2d 105 (1973).

207. 84 S.D. 701 at 705-706, 176 N.W. 2d 239 at 242.

208. 87 S.D. 151 at 156, 204 N.W. 2d 105 at 108.

209. Garton at 20.

210. See Garton at 18-20 ("If the defendant's riparian right was "vested," and therefore, not affected by the 1955 legislation, the priority date of that right should have been held to be the date of the original entry on the land by the defendant's predecessor in title.").

211. S.D. Codified Laws Ann. §41-2-19 (1985 Revision).

212. Id. at §41-2-21.

213. Printout of Department water rights, March 6, 1990, provided by Genny McMath, Natural Resources Analyst, Department of Water and Natural Resources.

214. Personal Communication with Genny McMath, South Dakota Department of Water and Natural Resources, July 13, 1990.

215. Telephone Interview with Cheryl Willis, U.S. Fish and Wildlife Service, Denver, November 15, 1989.

216. S. D. Codified Laws Ann. §46A-1-15 (1987 Revision).

217. According to Dwayne Murphy, an instream flow specialist with the South Dakota Division of Water Resources Management, the two agencies started to put together a procedure for designating rivers as wild and scenic. The effort ended because of a dispute about the designation of a portion of the James River as wild and scenic. Telephone interview with Dwayne Murphy, June 23, 1989.

218. Garton at 35-36.

219. S.D. Codified Laws Ann. §46-1-9 (1987 Revision) (discussed above at pages 1-2).

220. Garton at 35.

221. S.D. Codified Laws Ann. §46-1-15 (1987 Revision).

222. Id. at §46-2A-9.

223. Notice requirements are contained at §46-2A-5.

224. Id. at §46-2A-7.

225. In re the Application for Water Permit No. 5146-3 (S.D. Water Management Bd. Dec. 2, 1987).

226. In re the Application of Water Permit No. 1441-1 (S.D. Water Management Bd. Oct. 27, 1988).

227. In re the Application of Mark N. Mock for Water Permit No. 5244-3 (S.D. Water Management Bd. March 22, 1989).

228. Statutory authorization for the plan is contained in S.D. Codified Laws Ann. at chapter 46A-1.

229. A more extensive description of this structure and the state water planning process is contained in South Dakota Department of Water and Natural Resources, 1989 State Water Plan and 1988 Annual Report at 2-5 (1989).

230. Id. at 2. These criteria are not listed in the water plan.

231. Telephone conversation with Ron Beto of the South Dakota Water Resources Management Division, June 23, 1989.

232. S.D. Codified Laws Ann. chap. 34A-10 (1985 Revision).

233. A few South Dakota cases deal with ownership of submerged lands, but none discuss water appropriation.

234. S.D. Codified Laws Ann. §34A-10-1 (1985 Revision).

235. Id.

236. Id. at §34A-10-8.

237. Utah Code Ann. §73-3-1 (1943).

238. J.J.N.P. v. Div. of Wildlife Resources, 655 P.2d 1133 (Utah 1982)

239. Bountiful City v. DeLuca, 292 P. 194 (Utah 1930)

240. Duchesne County v. Humphreys, 148 P.2d 338 (Utah 1944).

241. Utah v. Tanner, 512 P.2d 1022 (Utah 1973)

242. Utah Code Ann. §73-1-3 (1989 Repl. Vol. 7C).

243. McNaughton v. Eaton, 242 P. 2d 570, 572 (Utah 1952).

244. Lake Shore Duck Club v. Lake View Duck Club, 166 P. 309 (Utah 1917).

245. Id.

246. Id. at 311.

247. Utah Code Ann. §23-21-1 (1984 Repl. Vol. 3A).

248. Id. at §23-21-5.

249. Personal communication with Lawrence Ferry, Utah Division of Wildlife Resources, March 1, 1990.

250. Printout of Fish and Wildlife Service Water Rights from the Utah State Engineer, March 6, 1990.

251. Id. at §73-3-8(1). Anything "not for the best interest of the public" is "detrimental" within the meaning of the section. Tanner v. Bacon, 103 Utah 494, 136 P. 2d 957 (1943).

252. Utah Code Ann. §73-3-8 (1989 Repl. Vol. 7C).

253. Id. at §73-3-3.

254. 102 Utah Adv. Rep. 8 (Utah 1989), vacated and reinstated, Case No. 880143 (Feb. 23, 1990).

255. Utah Code Ann. §73-6-1 (1989 Repl. Vol. 7C).

256. Id. at §73-6-2.

257. Utah Code Ann. §73-3-3(11)(b)(i)(1987).

258. Id. at §73-3-3 (11) (b) (ii).

259. Id. at §73-3-3 (11) (a) (i-iii).

260. Id. at §73-3-3 (11)(d)(i).

261. Id. at §73-3-3 (11)(e)(i).

262. Utah Code Ann. §73-3-29(1)(a) (1989 Repl. Vol. 7C). Steps reasonably necessary to alleviate injury or damage to person or property are exempted from this requirement. Id. at §73-3-29(1)(b).

263. Id. at §73-3-29(3)(b).

264. Id. at §73-3-29(3)(c).

265. Utah Code Ann. §73-1-1 (Repl. Vol. 7C 1989).

266. 115 Utah 215, 203 P.2d 922 (1949).

267. Id. 203 P.2d at 930.

268. Id. 203 P.2d at 927.

269. Id.

270. Id. 203 P.2d at 930.

271. Id.

272. 121 Utah 394, 242 P.2d 570 (1952).

273. Id. 242 P.2d at 573-574.

274. 570 P.2d 687 (Utah 1977).

275. Id. at 689.

276. Wyo. Stat. §41-4-502(1980).

277. Wyo. Hereford Ranch v. Hammond Packing, 236 P.764 (Wyo. 1925).

278. Wyo. Stat. §41-4-503 (1977).

279. Wyo. Stat. §41-3-114 (1985).

280. Wyo. Stat. §41-3-1002(e) (Supp. 1989). Thus, the statute is similar to Colorado's instream flow law on this issue.

281. Id. at §41-3-101 (1981).

282. John Meir & Son v. Horse Creek Conserv. Dist., 603 P.2d 1283, 1288 (Wyo. 1979).

283. Wyo. Stat §41-4-317(1957).

284. Id.

285. Quinn v. John Whitaker Ranch, 92 P.2d 568 (Wyo. 1939).

286. Kearny Lake, Land & Reservoir v. Lake Desmet Reservoir, 475 P.2d 548 (Wyo. 1978), modified, 487 P.2d 324 (Wyo. 1979).

287. Wyo. Stat. §41-3-401(a) (Supp. 1989). An intent to abandon the water need not be shown. Id. at §411-3-401(a). Thus, the key to whether water rights for wetlands have been abandoned would be whether the use is considered beneficial.

288. Personal communication with Gary Butler, Habitat Supervisor, Wyoming Game and Fish Commission, July 13, 1990.

289. Fassett, Wyoming's Instream Flow Law, in **Instream Flow Protection in the West** at 404 (1989) (hereafter Fassett).

290. Wyo. Stat. §41-3-1001 (Supp. 1989).

291. Id. at §41-3-1002(a,b).

292. Id. at §41-3-1002(e).

293. Id. at §41-3-1006(g,h).

294. Id. at §41-3-1001(c).

295. Id. at §41-3-1001(d).

296. Fassett, at 405.

297. Wyo. Stat. §41-3-1003(b)(Supp. 1989).

298. Id. at §41-3-1003(c).

299. Id. at §41-3-1004(a).

300. Id. at §41-3-1006(e).

301. Id. at §41-3-1007(a).

302. Id. at §41-3-104 (1977).

303. Id. at 41-3-1009 (Supp. 1989).

304. This discussion is taken from Bushong, "Kendrick Project Case Study" (NRLC Research Report - Draft, Aug. 1990).